
Technical Memorandum

Private Sector Assessment, Non-City Programs and Partnership Case Studies

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DRAFT

Prepared for:

City of Austin
Public Works Department
505 Barton Springs Road, Suite 900
Austin, Texas 78704

Prepared by:

HDR Engineering, Inc.
4401 West Gate Blvd, Suite 400
Austin, Texas 78745

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Introduction

As one of the first steps in developing an *Integrated Solid Waste Management Master Plan* for the City of Austin (City), HDR Engineering, Inc. (HDR) surveyed a broad sampling of communities, institutions/non-profits, and private sector companies operating within the City of Austin watershed to gather data to support this Technical Memorandum. These surveys provided essential background information to support the following areas of inquiry:

- 1) To identify services and capacities currently available in the region;
- 2) To determine diversion rates, costs and prices for various services currently provided;
- 3) To determine what services are planned for the future within the City watershed and estimate future capacity; and
- 4) To identify tools to foster development of partnerships.

The groups surveyed included:

Public Agencies and Institutions/Non-Profits - The cities of Cedar Park and Georgetown, Austin Independent School District (AISD), Capital Metropolitan Transportation Authority (CMTA), Ecology Action, Goodwill Industries of Central Texas, and the University of Texas at Austin (UT).

Private Sector Service Providers - Balcones Resources, Central Texas Refuse (CTR), River City Roll Offs (RCROs), and Texas Disposal Systems, Inc. (TDS).¹

Partnership Case Studies - Boulder County/Eco-Cycle (CO), City of Napa/Napa Recycling and Waste Services (CA), City and County of San Francisco/Recology (CA), and City of Berkeley/Urban Ore (CA).

Information gathered from these surveys revealed possible opportunities for partnerships with the City along with recommendations on how to best streamline existing services. The Review of the Non-City Programs Section offers a snapshot of current waste capacity and services and explains how some private companies are poised to handle additional waste from the City's watershed. Completed surveys for each of the Non-City Service Providers are included in Attachment A.

Discussions with representatives from the partnership case studies in Colorado and California provided insights into the benefits and challenges of such partnerships and details about their operational structure. The case studies demonstrate the value of developing a collaborative

¹Surveys have been sent to Recon Services, Waste Management (WM), Republic Services/BFI (which operates collection/hauling services in Austin as Allied Waste, a materials recovery facility as ACCO Waste Paper of Austin and operates the Sunset Farms Landfill), and IESI. Survey data for these entities will be incorporated into future iterations of this memorandum as it becomes available.

relationship along with suggestions on how to avoid creating adversarial situations. Attachment B includes surveys from the partnership case studies.

In summary, this technical memorandum includes a review of private and non-profit solid waste-related programs, identifies opportunities for partnerships and how to build upon them and provides recommendations on ways to improve the City's solid waste system. The findings from the memorandum will be presented to the public at a workshop to be held in August 2010. Based on input from that workshop and any additional research conducted, the recommendations will be included in the *Integrated Solid Waste Management Master Plan* to be published in spring 2011.

Review of Non-City Programs

Communities and Public Agencies

City of Cedar Park

The City of Cedar Park has a contract with Central Texas Refuse (as of February 2010) to collect and dispose of residential solid waste from approximately 14,700 residential customers. The contract includes single stream collection of recyclables. Cedar Park provides residential customers with two 96- gallon carts: one is for solid waste and the other is reserved for recyclables. Solid waste is collected curbside once per week. Customers may place up to seven additional refuse items (or bags) curbside for collection. A pay as you throw rate structure was considered during the contract negotiation in February 2010 but was not selected. Cedar Park did not want to escalate the number of changes the customers were seeing and the City saw implementing a pay as you throw system as cumbersome. Recyclables are collected every-other-week on the same day that the residents' regular solid waste is collected. The city designates weeks as "A" (solid waste collection only) and "B" (solid waste and recyclables collection). Each residential unit is charged \$16.98 plus sales tax per month for this service.

The new contract with Central Texas Refuse (operating as Cedar Park Disposal) as of February 2010 upgraded Cedar Park's recycling program to single-stream, including collection of plastics #1 through #7, glass, corrugated cardboard, paper, and aluminum and steel cans co-mingled in the designated recycling cart. Prior to the new contract with Central Texas Refuse, glass and plastics #3 to #7 were not accepted as recyclable items. The results of this change are significant. In 2009, prior to single stream recycling, Cedar Park diverted only 6.5 percent (by weight) of materials collected curbside to a recycling facility. Since enhancing the recycling program in February 2010, Cedar Park has diverted an average of 14.2 percent (by weight) of materials collected curbside. Recycling is optional for Cedar Park residents; Central Texas Refuse estimates a 65% participation rate in the recycling program.

Yard trimmings are collected as part of general solid waste collection and disposed of with the solid waste in the landfill. Cedar Park sponsors annual one-day household hazardous waste (HHW) collection events and does not operate any drop-off facilities for HHW, traditional recyclables,

construction and demolition (C&D) debris, or any other materials. City personnel expressed that there may be interest in operating a shared HHW or other drop-off facility with the City of Austin.

From January 2009 through January 2010, Cedar Park disposed 19,325 tons of residential municipal solid waste (MSW) at the Williamson County Landfill. From February through April 2010, Cedar Park collected and disposed of approximately 4,380 tons of MSW at the BFI Sunset Farms Landfill. Recyclable materials collected from residential units in Cedar Park are transported to the Greenstar facility in San Antonio. Cedar Park city officials expressed interest in being able to use a recycling facility in the Austin area.

City of Georgetown

TDS collects residential and commercial MSW and C&D materials from over 18,000 customers in and near the City of Georgetown and uses transfer trucks to haul these materials to the TDS-owned landfill in Creedmoor. Curbside recycling service includes glass bottles (all colors), aluminum cans, steel cans, plastics #1 and #2, newspapers and inserts, magazines, books with covers removed, white paper, and junk mail. Single-stream recycling is not available, but Georgetown city officials expressed a desire to provide this service in the future. The residential customer base is growing as there is high growth in Georgetown's northwest corridor and large annexations. Some of the more rural areas are challenging and expensive to service.

Customers pay rates between \$14 and \$18 for solid waste collection services depending on their tier (Tier 1 – inside City limits with recycling, Tier 2 – outside City limits with recycling, Tier 3 – extraterritorial jurisdiction without recycling). Georgetown diverts branches and trees (such as Christmas trees) from the landfill, offering residential utility customers the opportunity to drop off tree limbs, brush, and other yard waste at the City Collection Station for no charge. Georgetown mulches about 50,000 cubic yards of brush deposited by residents each year, and offers utility customers free mulch with proof of residency, such as a copy of their utility bill and photo identification. Customers may also place tree limbs, brush and other yard waste curbside (up to five bags or bundles per week) for collection by TDS; but this yard waste is not recycled and goes to the landfill. As part of their contract, TDS offers master gardener and composting classes to Georgetown residents several times per year.

Three years ago Georgetown replaced annual one-day HHW collection events, which were expensive, with a voucher system saving the City money. They contracted with a private company PA-JER doing business as Williamson County Recycle Center to implement the voucher program. Vouchers are available online or at the utility billing office and cover 100% of disposal costs for Tier 1 customers and 50% of the disposal costs for Tier 2 customers at the Williamson County Recycle Center. Tier 1 and Tier 2 customers can request a voucher once every three months; volumes or amounts of HHW brought to the facility are not otherwise restricted.

In 2009, about 14 percent of materials collected were diverted from the landfill, including recyclables, C&D materials, and brush. Georgetown is developing a solid waste master plan and evaluating strategies to expand its current service offerings with hopes to offer single-stream recycling. Georgetown may have the opportunity to offer single-stream recycling once the TDS

materials recovery facility (MRF) begins operation in the fall of 2010. Georgetown expressed interest in expanding regional recycling and is open to the possibility of partnering with the City of Austin for a shared regional recycling facility.

Institutions and Non-profits

Austin Independent School District (AISD)

TDS provides solid waste collection services for AISD offices and campuses. For the 2009-2010 school year AISD paid approximately \$625,000 for solid waste hauling and disposal services. AISD and TDS do not have an accurate record of the volume of solid waste sent to the landfill because waste from AISD is comingled with waste from other TDS clients.

AISD and TDS began a pilot cafeteria food scrap recycling program with four elementary schools in February 2010. TDS provided this service on a pro bono basis until the end of the school year. According to AISD, during a one week period, solid waste at these four schools was reduced by 40 percent. AISD hopes to offer this program at all 78 elementary school campuses in the future but there is no existing budget stream to support cafeteria food scrap recycling as a separate program. AISD and TDS are working together to determine whether the food scrap recycling program is economically feasible and/or if the existing contract can be modified in some way to enable this recycling program to continue. For example, an option might be to reduce trash pick up to compensate for increased collection of cafeteria waste.

Paper and other tear-able products are recycled at all campuses, with recycling services provided at no charge by Balcones Resources for 129 schools and by Abitibi for 39 schools. During the 2009-2010 school year, AISD sent approximately 930.5 tons of paper and other tear-able products to these two recyclers. This past year Abitibi paid a nominal amount directly to campuses to recycle their paper; it is unknown whether this will continue during the 2010-2011 school year. Because it is no longer profitable, Balcones Resources will not provide paper recycling services at no-cost during the next school year. AISD plans to issue a request for proposal this summer for a contract to provide recycling services during the 2010-2011 school year.

“Green Teams” and other environmental programs developed and managed by teachers, students and parent-teacher associations are active at many AISD campuses. These programs vary by school but are often used to collect additional recyclables, such as aluminum and plastics. The school district does not track volumes on these school-based recycling programs.

AISD is currently in the process of developing a Facilities Master Plan for the District. They have held several task force meetings and conducted a Community Dialog process. In June of 2010, AISD released a report entitled “AISD Facility Master Plan Community Dialog #1 Results Report” in which many subject areas were covered. However, no specifics regarding solid and recycling activities were mentioned in the Report. SWS should work closely with AISD Facilities Management to ensure that solid waste planning is incorporated into the District’s Facility Master Plan.

Capital Metropolitan Transportation Agency (CMTA)

StarTran, a contractor for CMTA, is responsible for facilities services, including solid waste collection, at all CMTA offices and maintenance facilities. CMTA staff collects solid waste from litter cans at all CMTA public facilities (park and rides, transfer stations, bus stops, etc.). StarTran transfers solid waste from CMTA offices, maintenance facilities and CMTA public facilities to three collection sites in Austin and Allied Waste collects both solid waste and recyclables from these sites twice weekly. CMTA pays Allied Waste approximately \$175,000 each year for hauling, landfilling and recycling services.

In 2009, 567.79 tons of solid waste was sent to the landfill (this includes waste from public facilities, offices and maintenance facilities). Paper, aluminum, glass, cardboard, waste oil, coolant, metals and wood products are collected for recycling at CMTA offices and maintenance facilities. In 2009, Allied Waste collected 51,390 pounds of mixed paper, 33,800 pounds of wood, and 213,280 pounds of metal for recycling, equivalent to a diversion rate of approximately 21 percent.

In the future, CMTA would like to reduce the volume of solid waste entering the landfill by increasing in-house recycling efforts (particularly paper and cardboard), with a goal of reducing solid waste disposal trips from twice weekly to once weekly. CMTA also expressed interest in partnering with the City to streamline solid waste pick up from litter cans at public facilities.

Ecology Action

Ecology Action operates a downtown processing center, which operates like a mini- MRF with one horizontal baler and one vertical baler. Ecology Action accepts the same list of recyclables accepted by the city in curbside collection as well as clean and dry plastic bags, cell phones, inkjet cartridges, metal, and batteries. Batteries are taken to the City's HHW facility. In addition to the downtown processing center, Ecology Action operates three drop-off locations at Bertram, Pflugerville, and the Village of Point Venture. The Pflugerville facility will be phased out because the City of Pflugerville recently began single stream curbside recycling. Ecology Action's operating budget is funded by individual donations, public and private contracts (including the City of Austin contract for 220 tons a month, and its business pick up program), and materials sales; each accounts for approximately one third of the operating budget. Capital improvements and other programs offered free to generators are grant funded, and are not factored into yearly budgets.

Ecology Action also provides free compartmental recycling roll-off containers and hauling and sorting for schools funded by the Impact Austin grant. Schools must apply directly to Ecology Action and administer the program internally. Five Austin schools are involved in this program. Additional Ecology Action services include free classroom or onsite educational programs (donations accepted), event recycling for groups up to 50,000 people, a "Green Business" service which offers paid services to businesses and multi-family residences, and job training programs. Green Business waste pick-up includes six 55-gallon bins and a Gaylord box² beginning at \$40 per

² A large box approximately 64 cubic feet in size used for handling recyclable materials.

pick-up within a one to five mile radius; prices go up based on the distance from Ecology Action. Pick ups can be scheduled as needed, one-time or on a regular schedule.

Ecology Action sells food-grade metal barrels, blue glass, and other sorted reusables if the market supports it. All other recyclables collected are offered to the public for reuse for free. Ecology Action will pay customers who drop off processed materials such as baled cardboard to sell to the paper mill.

Ecology Action is interested in policy that increases both the City of Austin's zero waste programs and allows for public/private partnerships so zero waste goals can be met quickly and efficiently while the City continues to build capacity. Ecology Action envisions moving on to other zero waste endeavors such as composting, reuse, research and development for local manufacturers with recyclable products, and developing more education programs including zero waste. Ecology Action is happy with its partnership with the City which allows them to provide free service to residents and businesses in Austin who have no other reasonable option for recycling. Ecology Action believes commercial properties have an important role in the City's wasteshed and they are interested in updating the multifamily and business ordinance to reflect this. They see community compost centers/drop-offs as an effective way to end Austin's dependence on landfills as well as share the work and resources with a wide variety of small and large service providers.

In 2009, approximately 2,870 tons of materials were brought in to Ecology Action and approximately 80 percent was recycled or reused. About four cubic yards of solid waste is collected by IESI twice per week from the processing center.

Goodwill Industries of Central Texas (Goodwill)

Goodwill offers a place for individuals to donate unwanted electronics, clothing, shoes, furniture, toys and other household items. Goodwill operates regular retail stores as well as Computer Works retail stores to encourage the re-use of items. Donated computers are de-manufactured and either resold or recycled. Revenues generated at Goodwill's retail stores help fund their mission to provide job-related services and opportunities to people with barriers to employment.

The Environmental Business Services (EBS) division of Goodwill works with local organizations, government agencies and corporations to divert more than 250 tons of electronic waste from central Texas landfills each month in an economically and environmentally sound way. This division operates as a Zero Waste Business, diverting over 90 percent of all the products received from landfill and/or incineration.

Goodwill salvages and recycles many other donated items that cannot be sold at Goodwill's retail stores, including household electronics and televisions, books, textiles, shoes, plastics, metal, paper, cardboard and other miscellaneous items. These materials may be sold at outlets, at auctions or donated for re-use. Goodwill's "Blue Hanger" receives products not sold at all Goodwill outlets in the area and sells them in bulk and/or lots. The Blue Hanger is more profitable than the Goodwill outlets. Goodwill also educates the public about the importance of recycling used electronics through the Goodwill Computer Museum and their RECONNECT program; a partnership with Dell Inc. to collect and recycle used computer equipment.

In 2009, approximately 28,500 tons of items were donated to Goodwill. Of that total, approximately 12,000 tons were sold, approximately 10,500 tons were recycled or salvaged, and approximately 6,000 tons were sent to the landfill as solid waste. Goodwill's diversion rate in 2009 approached 80 percent. Waste Management received the majority of Goodwill's solid waste (about 3,700 tons), followed by Allied Waste/Republic (about 1,640 tons), and TDS (about 640 tons).

Goodwill is working toward a goal of zero waste by 2012. A planned move into a new 124,000 square foot facility in November 2010 may provide Goodwill with an opportunity to increase recycling (and, in turn, revenues) and foster partnerships with local businesses and the City. Goodwill is considering designating space to serve as a "drop" station where partners can drop off certain recyclable materials.

Goodwill sees opportunities to partner with the City to provide workforce resources to help staff a future MRF, provide additional equipment and containers in business and multi-family locations to collect more recycling and used items, to explore expansion of services in their newly expanded Montopolis location and other sites to continue visioning other goals while meeting their mission to "put people to work"³.

University of Texas at Austin (UT)

The Recycling and Sustainability Branch at UT oversees on-campus recycling and solid waste services with a staff of thirteen. Two crews employed by UT collect solid waste Monday through Friday in full-sized solid waste trucks and haul it to the TDS landfill. Cost for disposal at this landfill is \$32 per ton. UT solid waste services staff or contractors collect solid waste from UT's satellite properties. Contractors were selected by competitive bid; UT sees the outlying properties continuing to be serviced by competitive bid. On campus roll-off containers are hauled by contractors because UT does not have the capability to move these larger containers. At this time, landscaping waste such as limbs, branches, and grass are not mulched but is placed in roll-off containers and sent to the TDS landfill. Additionally, UT crews provide solid waste pick up on some weekends in support of athletic events.

From September 2009 through May 19, 2010, approximately 1,865 tons of UT MSW was landfilled. Paper and cardboard are recycled throughout campus by Balcones Resources, which reimburses UT at 75 percent of the official board rate⁴ for these products. From September 2009 through May 19, 2010, UT recycled approximately 945 tons of paper and cardboard.

The Campus Environmental Center (CEC) is a student-run organization under the Recycling and Sustainability Branch and has about 1,200 members. The CEC recycles plastics #1 and #2 and aluminum on campus. On a volunteer basis, office workers, students and staff dispose of plastic and aluminum cans in specified containers that are periodically collected by volunteers. These

³ Based on conversation with Robin Llewellyn of Goodwill Industries, August 25, 2010.

⁴ This refers to the *Official Board Markets (OBM)* publication; also known as the *Yellow Sheet*, which lists transacted prices for the more commonly recycled grades of recovered paper.

recyclables are stored on campus prior to being taken to BFI for recycling. UT is reimbursed for aluminum and pays an inexpensive rate for recycling of plastics.

In addition to recycling, reuse is an important part of sustainability on the UT campus. The “Trash to Treasures” program is a major fundraiser for the CEC in which items left by students moving out of the dorms (refrigerators, bicycles, furniture, etc.) are stored over the summer and sold to new students at the beginning of the fall semester. The Surplus Property Division functions in a similar fashion. Used school and office furniture, vehicles, wood pallets, and other miscellaneous items are sold at auctions three times per year. UT is mandated to donate used computer and electronic equipment to Texas Prison Industries for reuse.

UT does not have weights or volumes of surplus materials sold/donated for reuse, or plastics or aluminum recycled, but about 40,000 pounds of wooden pallets were diverted from disposal in 2009. UT sends C&D waste to the landfill and most contracts for new building construction or renovation specify that the construction contractor must recycle some of the waste and/or use some recycled construction materials, depending on how the contract is written.

UT is planning a variety of new waste and recycling-related programs and services:

- UT is investigating Styrofoam recycling and options for vendor take back of packaging materials.
- UT will begin collecting glass containers in two specified bins on campus as a pilot program beginning in the summer of 2010.
- UT will conduct a solid waste audit to determine the type and volumes of materials being thrown away to help develop successful campus recycling programs.
- UT plans to begin tracking weights of recycled materials.
- The UT Department of Housing and Food Service plans to begin commercial composting of all food scraps at their dining facilities (commons, cafes). The composting program will rely on post-consumer sorting of solid waste from compostable items. UT is purchasing compostable takeout food containers for three cafes where food is typically taken to go and plans to focus on signage and education as the keys to program success. UT is currently in the process of awarding a bid for this service; composting is expected to begin in the fall of 2010.

University of Texas Arlington (UTA)

UTA houses the Center for Environmental Excellence within the Division for Enterprise Development. They serve the public through relevant environmental projects funded by regulatory entities such as the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) as well as projects sponsored by other private and public entities. Offices and staff resources in Houston and Austin, in addition to the Arlington location, support a variety of these efforts.

One of the highlighted projects is the Southwest Network for Zero Waste. This is a group of environmental professionals dedicated to finding money-saving options for conserving natural resources. As part of a nationwide network, they work to identify pollution prevention options for large and small businesses as well as consumers and are able to provide high quality pollution prevention information.

UTA is interested in research and development opportunities for product stewardship, take-backs and other issues consistent with the City of Austin's Zero Waste Plan.⁵

Private Sector Service Providers

Balcones Resources

Balcones Resources (Balcones) is located in central-east Austin and services commercial recyclers and provides for residential drop off of recyclables. Balcones provides a document shredding service that offers both on-site shredding or haul away for off-site processing. Balcones also processes plastics #1 through #7, cardboard, aluminum, limited glass, carpet, and a variety of non-traditional wastes from commercial accounts.

The Balcones MRF reports a diversion rate of about 98 percent. Balcones operates a fleet of vehicles to haul materials, but also uses third party haulers, including WM and TDS. The Balcones service area includes the area from Waco to San Antonio and Marble Falls to Bastrop, but the company estimates that 90 percent of materials collected in 2009 came from Austin-based waste generators.

Balcones bases its pricing structure on a formula that includes factors such as the type and quality of the material, volume and handling costs. As a result, Balcones is able to pay for many of the materials processed at its facility each month. In 2009, Balcones recycled an estimated 58,800 tons of material and disposed of 1,200 tons of solid waste at the WM landfill. Balcones processes 4,000 to 5,000 tons of material per month, a rate that is below their capacity. At their existing MRF, Balcones could handle approximately 2,000 tons of additional recyclables per month. Additionally, they have plans to build a new MRF in central Texas to increase capacity.

Central Texas Refuse (CTR)

Central Texas Refuse is a full service waste disposal company serving Austin and the surrounding areas since 1981. CTR provides frontload, side-load and roll off containers and frontload cardboard recycling containers. CTR offers recycling to residential and commercial customers and accepts paper products and co-mingled aluminum, steel and tin cans, and plastics #1 and #2. In 2009, CTR collected approximately 103,000 tons of MSW and 28,000 tons of C&D waste from commercial and multi-family accounts in Austin. They recycled approximately 10,000 tons of materials for a

⁵ Based on discussion with Thomas Vinson-Peng of UT Arlington, August 23, 2010.

diversion rate between seven and eight percent. Recycling is processed by Tri-Recycling. CTR pays \$30 per ton as tipping fees at their disposal facilities. Prices for their residential and commercial services average \$3.50 per yard.

CTR has capacity to handle/transport more waste from Austin waste generators. In the future, CTR would like to build a single-stream recycling facility and expand the commercial side of its business. During a discussion in July 2010, CTR's manager stated that they are currently working in conjunction with Williamson County and Waste Management to build a single-stream recycling facility. The facility will be constructed in Williamson County to service CTR's residential customers in Round Rock and Cedar Park and the whole of Williamson County. CTR mentioned that this new facility would also be well placed to service portions of the City of Austin within northern Travis County. CTR stated that they are currently completing the due diligence process and plan to be operating by the summer of 2011.

Texas Disposal Systems, Inc. (TDS)

TDS is a full-service waste and recyclables collection company with operations located throughout Texas. Primary areas of operation include Austin, San Antonio, Georgetown, Alpine, San Angelo, and Victoria. For the purposes of this report, TDS includes Texas Disposal Systems, Inc., Texas Disposal Systems Landfill, Inc., Texas Landfill Management, LLC, and Garden-Ville. A partial list of TDS services includes:

- Residential, commercial and industrial waste and recyclables collection;
- Special waste and asbestos hauling;
- Special event waste collection and diversion of recyclables and organics, known as "Green Event Services."
- Portable storage units for construction job sites;
- Certified document destruction services;
- Natural disaster clean up services; and
- A reward program with incentives to recycle, known as "Smart Rewards."

The TDS landfill, compost and recycling facility is a regional facility that accepts solid waste and recyclables from 26 Texas counties. Operations include a citizen drop off area, a buyback and resale center; brush grinding, a compost production facility and organics product blending (including a wholesale and retail store), C&D waste sorting, Green builder authorizations and comprehensive reporting for applicable certifications, alternative fuel processing, scrap metal processing, scrap tire storage and processing, and a tree farm including approximately 11,000 trees. TDS operates many satellite facilities to support the company's southeast Travis County complex.

Annually, TDS and its affiliated companies and/or satellite operations collect, process, compost and recycle approximately 749,000 tons of residential, commercial and industrial MSW and approximately 197,000 tons of recyclables and reusables, including curbside collection and commercial recyclables, organics and metals for a total of approximately 946,000 tons. Just over half (53%) of the materials collected are generated from within the Capital Area Council of Governments planning area. According to TDS, overall diversion rates are estimated at 26 to 30

percent (although calculations show approximately 21 percent) but the company has stated it achieved a 75 percent diversion rate for select customers who participate in their Green Event Services program, such as the New Backyard amphitheater. TDS expects diversion rates for Green Event Services will reach 90 percent in the near future.

TDS is constructing a 104,000 square foot MRF that is planned to open in September 2010. TDS plans to open a wastewater treatment plant, a brackish water desalination plant, a landfill gas to energy plant, and a commercial drive-through game park. TDS is planning a multi-media interactive education center that will profile all aspects of the TDS integrated facility development business model.

River City Roll Offs (RCROs)

Located in northeast Austin, RCROs specializes in providing roll off containers for C&D waste. Service includes delivery of either 12 or 30 cubic yard roll off containers, hauling of co-mingled C&D waste, and sorting and processing of recyclables at their facility. Pricing depends upon the zip code of the facility being serviced. For example, costs in central Austin would be approximately \$350 for a 30 cubic yard container. RCROs recycles a wide variety of plastics, metals, packaging materials, foundation and demolition materials (such as concrete, aluminum mini blinds, sheetrock, framing materials and etc.), land clearing waste, and framing materials with a diversion rate of about 95 percent of the materials it receives. Most products are recycled with a small amount of antique and restoration pieces sold to Backyard Salvage and Garden, a retail store in the Hyde Park/Hancock Center neighborhood. RCROs operate as a registered transfer facility, allowing the company to accept a greater variety of products with a greater level of contamination than other C&D recyclers.

While 60 to 70 percent of RCROs waste comes from City waste generators, their service area includes the surrounding area to Marble Falls, Dripping Springs and south to Kyle. RCROs also offer a construction waste management service with volume and weight reporting of incoming materials and recyclables. This service is helpful to customers interested in LEED certification.

The RCROs facility has an annual capacity of 225,000 tons, with existing operations running well below capacity. RCROs would be able to handle more waste from City generators immediately, and has available infrastructure for expansion. RCROs is planning to expand into more municipal recycling (plastics, aluminum and cardboard) and plans to open a customer drop-off station at their facility to accept and process more aluminum, cardboard, and plastic. RCROs did not mention any barriers to opening the customer drop-off and plan to move ahead as soon as this option is economically feasible. RCRO indicates that they have the infrastructure and equipment available to currently open the drop-off station, but not the staff or management. They do not anticipate incoming material feedstock to be an issue; however RCRO indicates that monies from materials sales would be negligible and not profitable at this time. They indicated that they would like to be able to participate in a bid to garner a subsidy from the City so they could move ahead with the project.

Partnership Review

Case Studies

This section features four case studies that highlight successful partnerships. A description of each partnership, contractual arrangement and pros and cons of the arrangement are discussed below. The next section--Tools to Foster Partnerships--outlines some common partnership attributes described in the surveys.

City of Napa and Napa Recycling and Waste Services California

Partners: City of Napa and Napa Recycling and Waste Services (NRWS), LLC (private)

As of January 2004, the City of Napa, California owned their MRF, putting the city in a competitive position to competitively solicit a contract with an operator. Napa awarded a contract for both collection and processing to a partnership of four family-operated businesses operating as NRWS, a limited liability company. NRWS hauls on behalf of the City of Napa. The public/private partnership between Napa and NRWS has been successful in part because Napa laid out the terms of the contract in the solicitation and asked bidders to identify exceptions in writing in their bid; an action that required all partners to be aware of the expectations from the beginning. The initial contract was for 10 years with four one-year renewal options.

This public/private partnership has aligned interests in increasing recycling. The contract with Napa provided financial incentives for NRWS to divert as much waste as possible. NRWS is guaranteed increases of three percent indexed for inflation. Additional contract clauses for NRWS include:

- A 30 percent share of material sales.
- A per unit cost for exceeding the base as established in the contract. A base number of 80,000 tons per year was established from historical figures in the initial contract in each of the four primary processing areas (wood, MRF, composting and C&D). NRWS receives a per unit cost for exceeding the base. For example, in 2009 NRWS processed 95,000 tons and received \$750,000 for the extra 15,000 tons processed. NRWS increased their recycling by becoming more efficient and recycling more types of materials.
- Incentive pay (on an escalating scale) for diverting more than 50 percent, which is the base diversion rate stated in the contract. Conversely, NRWS will incur a financial penalty if diversion rates drop below 50 percent.
- Every third year of the contract, Napa and NRWS go through a cost review to “reset” the base. For example, the contract was based on NRWS servicing 21,000 residential customers. In 2008, they serviced 21,500 residential customers. During contract review, Napa awarded NRWS 500 more units of cost since the customer base had grown.

Napa mentioned several advantages to their partnership with NRWS. These advantages help make their partnership stronger and are described below:

Transparency –Napa is the gatekeeper and maintains operation of the scale, weighing incoming materials.

Aligned Interests – Napa cemented a mutual interest in expanding recycling by increasing the financial stake of NRWS in recycling.

New Ideas – The contract allows Napa and NRWS to change the scope in mid-contract. For example, NRWS noticed that many whole colored bottles (not broken pieces) were entering the pre-sort area, so NRWS proposed to add two sorters to separate bottles by color, increasing their recycling value. Napa paid 70 percent and NRWS paid 30 percent for new equipment, with a respective return of 70 and 30 percent on materials sold.

Napa and NRWS also maintain offices at the same location and began their partnership with a 10 year contract. They regularly communicate new ideas and share costs on new equipment and profits when they are made. These factors foster a stronger relationship and effective communications among the partners. Each partner knows it will have to work with the other cooperatively for a long time, reinforcing the need to get along.

One disadvantage noted during this interview deals with transparency. NRWS just started operating a new transfer station for C&D, but Napa is not the gatekeeper at the scale. Napa and NRWS are revising the incentive structure so Napa can maintain transparency and the trust that it values with NRWS.

Boulder County and Eco-Cycle, Colorado

Partners: Boulder County and Eco-Cycle (non-profit)

Eco-Cycle created the first MRF in Boulder County in 1979, and expanded its services as a non-profit organization until 2001 when, in partnership with Boulder County, a new, modern and public recycling facility was built with funds from a special short-term sales tax. Eco-Cycle essentially handed over its “book of business” to the Boulder County government in exchange for a creative contracting approach. The County retains the final say on operations and business decisions and Eco-Cycle is responsible for operating the facility and achieving three benchmarks: (1) operate at low cost; (2) market material for high revenues; and (3) grow the amount of tons being recycled through the facility. In exchange for meeting these three goals, Eco-Cycle receives a monthly fee over and above operating costs that fluctuates between 7 and 9 percent of sales revenue. Other monthly payments include: County Recycling Fund which funded construction of the single-stream MRF (\$50,000 per month), new equipment fund (\$10 per ton on every ton processed), Bad Markets Fund to ensure haulers are not charged for dropping off materials at Eco-Cycle (two percent of monthly sales), and the remainder is paid to private haulers who bring material to the facility. No formula is used to pay private haulers; however, they are paid according to which markets are paying and/or according to any policy goals that Eco-Cycle has established. For example, Eco-Cycle is encouraging the collection of single-stream recyclables from local businesses by paying a premium rate to haulers collecting these materials.

Eco-Cycle and Boulder County began with a five-year contract, with two five year roll-over options. The contract is now in the second roll-over phase.

There are several advantages to this partnership. The community is protected by both the County government and a mission-driven organization. The partners have an aligned interest to increase recycling and make a small profit to create new and innovative programs. Eco-Cycle's partnership with the County ensures it will have a profit so, as the experts in the recycling field, they can focus on creating new programs. This partnership is beneficial to both partners and to the community as a whole.

Eco-Cycle identified trying to refine the appropriate role of the government staff members who oversee the contract, as the primary disadvantage to the partnership. Eco-Cycle had operated for years as a non-profit organization and is now subject to the government procurement process as required by their contract. Eco-Cycle considers the government procurement process more cumbersome and expensive than the private sector approach they were accustomed to. Eco-Cycle is also not allowed to negotiate with private vendors, as county government officials are now responsible for this aspect of contract management.

Eco-Cycle has explored the option of forming a low-profit limited liability company (L3C), a relatively new legal form of business entity created to bridge the gap between non-profit and for-profit investing by providing a structure to facilitate investments in socially beneficial, for-profit ventures while simplifying compliance with Internal Revenue Service rules for "Program Related Investments." The purpose of the L3C is to signal to foundations and donor-directed funds that entities formed under this provision intend to conduct activities so that they qualify as program related investments. One main difference in this mechanism from non-profits is that the mission must be met while the agreement of a low profit is expected. Agreements can be made for incentives to raise the profit over the minimum if certain goals are met. Five states have passed legislation to include L3Cs in state law, but Colorado and Texas are not among them. However, Eco-Cycle is considering incorporating in Wyoming, an adjacent state with L3C legislation.

City and County of San Francisco and Recology, California

Partners: City and County of San Francisco and Recology (private)

The City and County of San Francisco and Recology have an unusual partnership arrangement. A 1932 ordinance gives Recology the exclusive right to provide solid waste collection services for a fee within San Francisco. However, since Recology does not have a contractual agreement with San Francisco, San Francisco influences Recology's activities through regular communication, the ratemaking process, and other means. Since San Francisco and Recology must work together, San Francisco and Recology have developed mechanisms to work cooperatively to implement San Francisco's goals of 75 percent diversion by 2010 and zero waste by 2020.

- Senior program managers from the San Francisco Department of the Environment and Recology meet weekly to review ongoing tasks and resolve outstanding issues;

- San Francisco provides commercial technical assistance and outreach to commercial businesses through third party contractors who work closely with Recology staff to provide services to commercial customers;
- San Francisco provides “Environment Now” interns (funded with federal stimulus monies) and volunteers to provide outreach to businesses and multi-family dwellings; and
- Recology develops recyclable processing and composting infrastructure, construction and demolition debris processing, public area drop-off diversion, and new anaerobic digestion technology based on investments approved by San Francisco through the ratemaking process.

Under the 1932 ordinance, San Francisco approves and sets residential solid waste rates about every five years. In 2006, an “Alternative Combined Presentation” of revenues and expenses of the two collection companies (subsidiaries of Recology) that operate in San Francisco was submitted in response to past San Francisco and ratepayer requests to see financial and program information for both companies and to improve the transparency of the ratemaking process. The 2006 commercial rates use the customer’s diversion rate as the discount on the volume-based collection bill.

Survey responses noted several advantages to this public/private partnership. Close coordination and weekly meetings allow San Francisco staff and Recology staff to develop good working relationships and align their strategies and programs. While resource-intensive, the ratemaking process happens only once every five years, allowing San Francisco and Recology to work collaboratively for several years between ratemaking processes (which can be confrontational). Additionally, strong political leadership and staff expertise result in innovative policy initiatives (mandatory recycling and composting, plastic bag ban, cigarette butt fee) and state-of-the-art programs, sometimes referred to as San Francisco’s “fantastic three” – 1) green, blue, black collection carts; 2) restaurant and apartment food scrap diversion; 3) comprehensive school recycling and composting program.

Some disadvantages to the current arrangement were also identified. With no contractual agreement between San Francisco and Recology, San Francisco must find other ways to encourage Recology to provide the services it needs. Management depends on relationships between senior managers in San Francisco and at Recology. Changes in staffing can affect San Francisco’s ability to obtain what it wants from Recology, which makes cooperation and weekly meetings especially important.

Additional disadvantages identified include:

- Recology has exclusive rights to provide solid waste and recycling services for a fee in San Francisco, but some specialty recyclable materials are not efficiently or effectively handled by Recology. As a result, waste generators and specialty recyclers sometimes operate “under the radar” or Recology and San Francisco must “look the other way” or require the material to be handled through Recology (where, depending on the material, it may not be diverted effectively) or the material does not get recovered.

- Since only Recology may provide refuse and recycling collection for a fee in San Francisco, some generators may pay more for collection services than they would pay on the open market.

City of Berkeley and Urban Ore

Partners: City of Berkeley and Urban Ore (private), California

Urban Ore operates a reuse and recycling transfer facility on a three acre site and has two specialized retail areas--the Building Materials Exchange and the General Store. Urban Ore sells items such as doors, windows, and lumber at its Building Material Exchange, and furniture, hardware, and arts and media at its General Store.

Four departments source, clean, and sort material that becomes income for these two Urban Ore outlets. The Salvage and Recycling Department scavenges materials from Berkeley's solid waste transfer station. The Outside Trader Department makes house and business calls to pick up materials by appointment. The Building Materials and General Store are fed by separate receiving departments empowered to buy, accept drop-offs, and write trade credits that are treated as money when spent. Urban Ore has developed markets for many materials often deemed "hard to recycle," including window glass, aluminum window frames, and broken ceramics from toilets and dishes. It also handles more conventional recyclables such as cardboard. Urban Ore claims that it sends only two to three percent of what it takes in from all sources to landfills.

Berkeley contracts with Urban Ore to scavenge reusable materials from the public drop-off area on the City's transfer station floor. Berkeley crews also conduct some floor salvaging, mostly of mixed metals. Urban Ore loads reusables onto trucks and transports them across town to the Urban Ore Resource Recovery Park for resale. Urban Ore staff is trained to recognize potentially reusable materials and their market value. All Urban Ore staff members participate in a pay system that incentivizes them to divert as much material as possible into the highest paying markets available through income and profit sharing.

Berkeley pays Urban Ore \$40 per ton for reusable materials removed from the transfer station, which translates into a landfill cost savings to Berkeley of approximately \$20 per ton. The total cost to Berkeley to haul materials to the landfill, including transportation and tipping fee, is about \$60 per ton. The actual benefit to Berkeley is greater, because each ton Urban Ore removes from the transfer station is paid for at the fee gate at the rate of \$126 per ton, making the total fiscal advantage to Berkeley \$86 per ton. Berkeley budgeted \$48,000 in 2010 to divert up to 1,200 tons per year and has renewed its contract with Urban Ore several times. The current contract will expire in June 2011.

Berkeley relies on the expertise of the Urban Ore staff to recover nearly all potentially resalable materials that would otherwise be landfilled. Reusable goods may account for at least 5 percent of the tonnage received by transfer stations which adds up to a significant amount of waste diverted from the landfill and an even more significant value of materials recovered.

Urban Ore staff working at the transfer station specializes in assisted unloading, which speeds the unloading process and generates good will from facility users and ensures that valuable products are not destroyed when being off-loaded. They also help city staff separate recyclable materials at the public drop-off area so they can be recycled by Berkeley.

The arrangement does have a few disadvantages. Urban Ore and the Berkeley transfer station are located over a mile apart, making it sometimes difficult for customers to visit both facilities. The design of the transfer facility is inefficient and parts of the facility are in disrepair. Both Berkeley and Urban Ore have separately invested in developing new designs for rebuilding the transfer station to make it a more effective contributor to Berkeley's goal of zero waste.

Tools to Foster Partnerships

The partnership surveys revealed several tools that can help foster successful partnerships. These emerged as common themes in survey responses. These tools or mechanisms allow members of the partnership to work with one another towards a shared goal, foster trust and effective communication. The most effective mechanisms found in these case studies are described below:

Alignment of Interests – In each of the case studies profiled, there was a mutual interest in moving towards a shared goal, or an alignment of interests. This mutual interest was to increase recycling and/or reuse of materials. Governmental entities generally have an interest in expanding recycling for the public interest, to reduce carbon emissions, and increase diversion rates. Napa, Boulder County, San Francisco and Berkeley have all created financial incentives to expand recycling. Eco-Cycle and Urban Ore are also interested in increasing recycling as part of their mission. In contrast, if increased recycling would erode the client base for a partner (say of a landfill) and result in less income for a company, the two partners may not have an alignment of interests or a strong partnership.

Transparency – Trust is key to developing a strong partnership. All partners must feel confident that they are getting a fair deal. Napa manages the scales because compensation to NRWS is based on diversion rates and volumes. As gatekeeper of the scales, Napa feels confident that it is protecting taxpayers and paying appropriately for services rendered. Napa and NRWS are revising the incentive structure for a C&D transfer facility operated and managed by NRWS. San Francisco and Recology have increased transparency in their ratemaking process to foster trust between the partners and the public.

Frequent Contact – Frequent contact between partners can create a positive working relationship and foster efficient communication. Napa and NRWS have co-located offices and staff from San Francisco and Recology meet together weekly to review ongoing tasks and resolve outstanding issues. Personal relationships are particularly important to Recology and San Francisco as they partner without a contract and are compelled to work cooperatively to achieve the San Francisco's waste reduction goals. Urban Ore identified its location over a mile from the Berkeley transfer station as a disadvantage, but Urban Ore staff does work closely with Berkeley staff at the transfer

station and they have developed positive relationships with self-haulers by assisting them with the unloading process.

Letting Expectations be Known – Establishing goals and putting expectations in writing can keep partnerships on track. Napa made sure its expectations were known during the solicitation process by placing the terms of the contract in the solicitation. Those who bid on Napa’s contract were asked to submit written exceptions to the terms of the contract in their bids. This way all parties were aware of expectations from the beginning. Once the contract was awarded, Napa and NRWS immediately began working towards their goals instead of negotiating the contract. Baseline information on the amount of residences a partner is expected to service, diversion rates, and expected processed tonnages should be established at the beginning of the relationship and reviewed periodically to ensure they continue to represent a baseline for the area.

Utilizing the Experts – Using the skills of each partner to their fullest ability helps foster a sound partnership. Instead of micro-managing, service providers (“experts” in their field) may be able to determine the best way to handle work in a way that meets or exceeds established goals and expectations. Boulder County has established benchmarks for Eco-Cycle to reach, but how it reaches those benchmarks is left up to the non-profit.

City and county governments may not be experts in solid waste and recycling operations, but they do provide valuable expertise in other areas such as education and outreach to increase recycling and diversion rates and work towards shared goals. San Francisco provides interns, volunteers and third-party companies for technical support and education to increase commercial and multi-family residential recycling.

It would be beneficial to have the most experienced partner negotiate with private vendors to get the best deal. Companies already in the business of operating a MRF, landfill, composting facility, or other recycling entity may have experience and expertise that the city lacks. By using facilities already built by private firms, the public does not have to arrange for financing for such facilities and can acquire use of those facilities through competitively awarded service contracts.

Innovations/Scope Modifications – Allowing each member of a partnership to come up with new ideas and to propose modifications to scope can foster success. NRWS approached Napa about an abundance of intact colored glass bottles coming through its sorting facility. NRWS believed there was a market for these bottles, so NRWS (30%) and Napa (70%) shared the purchase of additional equipment to sort the bottles and now they share in the profits of their investment.

Stability – Ensure that rates and contracts are mutually beneficial, have aligned interests, and provide stability to all partners. There is more opportunity to develop a strong, two-way working relationship when there is stability knowing that the same provider will be in place for some time. Napa has been in partnership with NRWS for more than six years, a situation that enhances security, confidence and gives time to foster new innovations and ideas and added efficiencies. Eco-Cycle and Urban Ore have been in operation for over 30 years; Recology has operated in San Francisco for more than 100 years and been regulated via the 1932 ordinance for nearly 80 years.

L3C –This corporate structuring tool, written in as part of the State Tax Code can be used for the city to more effectively partner with non-profit organizations to ensure the goals of diversion and waste minimization or similar missions are prioritized over solely profit-driven goals.

Opportunities for Partnerships

There are several opportunities for partnerships within the City of Austin.

Partnering with Non-Profits with Specialized Expertise. Goodwill is moving into a larger facility in November 2010 and has expressed interest in partnering with Austin to provide multiple drop-off or collection stations for some hard-to-recycle items. This would allow for greater diversion of materials since Goodwill stores are located throughout the city and are generally accessible to the public. Goodwill's mission is to provide job-related services and opportunities to people with barriers to employment. Goodwill has also expressed interest in developing a work force for the new Austin area MRF. Ecology Action also provides job training programs and could be partnered with to develop a work force in the Austin area. Ecology Action is also interested in providing an expanded network of recycling drop-off locations throughout Austin. The Habitat for Humanity ReStore is also interested in providing expanded services for deconstruction and reuse of used or surplus building materials.

Partnering with Public Agencies with Needs for Similar Services. CMTA is interested in partnering with Austin to streamline solid waste collection from litter cans. Both CMTA and Austin service litter cans throughout the city, leading to a potential duplication of service. AISD and UT may be partners in providing education to different age groups about the benefits of recycling and how to do it correctly. There may be some advantages for Austin to directly provide collection services to AISD since many of the families sending students to AISD are customers of Austin solid waste services. At a minimum, there is a strong need to work closely with AISD on waste prevention, recycling and composting messages and education if for no other reason than AISD students are current and future solid waste customers in Austin.

Fostering Partnerships with Current Service Providers. Austin contracts for services through private sector service providers. TDS provides long-term disposal services to the City through its landfill contract while Waste Management provides collection services to downtown commercial customers through a contract with the city. Austin also contracts with private sector haulers for collection services at Austin facilities. There is opportunity to more closely align Austin's goals with its private sector service providers by employing some of the tools described in the case studies: alignment of interests, transparency, frequent contact, letting expectations be known, using experts, encouraging innovation and scope modifications, and stability.

Summary and Recommendations

Public Agencies and Non-Profits

Austin appears to be slightly ahead of the other local communities surveyed. Cedar Park only began offering single-stream recycling services in February 2010 and Georgetown hopes to move towards

single-stream recycling in the future, possibly with the opening of the TDS MRF in September 2010. While Georgetown has an active yard trimmings and branch mulching program, Cedar Park does not offer this service and has no immediate plans to do so. Cedar Park may be interested in processing its recyclable materials in the Austin area instead of at the Greenstar facility in San Antonio, if this option exists. Diversion rates for both Cedar Park (after enhancing its recycling service) and Georgetown (2009) were approximately 14 percent. Cedar Park and Georgetown both expressed interest in the possibility of creating a regional HHW or other recycling drop off center.

AISD campuses and the UT campus dispose of solid waste and yard trimmings at the TDS landfill in Creedmoor. Paper and cardboard recycling are instituted at AISD campuses and at UT. Other recyclables such as aluminum and plastics are recycled on a volunteer basis by “Green Teams” at individual AISD schools and by the CEC at UT. AISD is completing a four month pilot cafeteria waste recycling program at four elementary campuses, with estimates of reducing solid waste sent to the landfill by 40 percent in a single week. This pilot program is being funded by TDS and AISD hopes it can be expanded to include all 78 elementary school campuses. Similarly, UT is in the process of awarding a bid for commercial composting for all Department of Housing and Food Services dining facilities.

UTA houses the Center for Environmental Excellence within the Division for Enterprise Development. They serve the public through relevant environmental projects funded by regulatory entities such as the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) as well as projects sponsored by other private and public entities. Offices and staff resources in Houston and Austin, in addition to the Arlington location, support a variety of these efforts. One of the highlighted projects is the Southwest Network for Zero Waste. This is a group of environmental professionals dedicated to finding money-saving options for conserving natural resources. As part of a nationwide network, they work to identify pollution prevention options for large and small businesses as well as consumers and are able to provide high quality pollution prevention information. UTA is interested in research and development opportunities for product stewardship, take-backs and other issues consistent with the City of Austin’s Zero Waste Plan.⁶

Reuse of items is an effective means of diversion at UT. The Surplus Property Division and the CEC sells or donates items for reuse at various times through the year, including a profitable “Trash to Treasure” program for sale of items left behind by students when they move out. UT also donates used computers and electronics for reuse. Austin has opportunities to use both AISD and UT to promote their zero waste goals and to educate students about the importance of recycling and how to properly recycle and compost.

Goodwill has been very successful at diverting waste from the landfill, operating retail stores and funding its mission. In 2009, 80 percent of materials received were either sold in stores or sold at outlets, auctions or donated for reuse. Goodwill is working toward a goal of zero waste by 2012.

⁶ Based on discussion with Thomas Vinson-Peng of UT Arlington, August 23, 2010.

Goodwill envisions its new facility (opening in November) will present opportunities to act as a transfer station for hard-to-recycle items and is interested in providing a workforce for an Austin area MRF. Goodwill may also be able to collect hard-to-recycle items at all of its stores throughout the City. Goodwill sees opportunities to partner with the City to provide workforce resources to help staff a future MRF, provide additional equipment and containers in business and multi-family locations to collect more recycling and used items, to explore expansion of services in their newly expanded Montopolis location and other sites to continue visioning other goals while meeting their mission to “put people to work”⁷.

CMTA and its contractor StarTran collect solid waste from litter cans throughout Austin. Items from CMTA’s offices and maintenance facilities are recycled, but no recycling is done at public facilities (park and rides, transfer stations, rail and bus stations) because of potential contamination issues. CMTA would like to increase in-house recycling efforts to reduce solid waste pick up from twice to once per week, which would save money, fuel and landfill space. CMTA expressed interest in streamlining pick up from litter cans inside Austin limits.

Ecology Action diverts approximately 80 percent of the materials it receives with a downtown flagship facility supported by three smaller drop-off facilities in outlying areas. Services offered include a program to provide free roll-offs for recycling to schools, a “Green Business” program, and job training services.

Recommendations

- Meet with Cedar Park and Georgetown to codify interest in regional processing capacity for single-stream MRF and yard trimmings/food scrap processing. If appropriate, ensure that the size and throughput of new MRF and yard trimmings/food scrap processing capacity can accommodate additional tonnage from communities outside Austin city limits.
- Meet with Cedar Park and Georgetown (and other local cities and towns) to discuss development of a HHW facility that would meet regional needs.
- Meet with AISD and UT to identify projects for collaboration. Identify opportunities for Austin to provide services to AISD and UT. Work with AISD and UT to ensure that students and their families are aware of City-based programs. Consider providing outreach and education collaboration with and assistance to AISD and UT. Explore opportunities with UT for research and development projects for new products and services needed to recover more materials that are discarded in the region.
- Provide a proposal to CMTA for recycling and solid waste collection from litter cans throughout the city.
- Meet with Goodwill and Ecology Action to discuss workforce development related to new city initiatives, including the new single stream MRF and providing an expanded network of

⁷ Based on conversation with Robin Llewellyn of Goodwill Industries, August 25, 2010.

recycling drop-off centers throughout the City. Discuss the advantages of incorporating these functions as L3Cs.

Private Sector Service Providers

The private companies surveyed, including Balcones, River City Roll Offs, Central Texas Refuse and TDS, all indicated that they have unused capacity at their facilities and could process additional materials for reuse, recycling and composting from City waste generators.

- Balcones can accept at least 2,000 tons more recyclables per month at its existing facility. Additionally, Balcones is in the planning phase of designing a new MRF to service the central Texas area.
- Central Texas Refuse indicated it could easily add more vehicles to its fleet to service more Austin waste generators and is planning to expand its business to include single-stream recycling.
- River City Roll Offs primarily services C&D waste generators and has the potential to process 50 percent or more additional materials over current volumes. RCROs has infrastructure at its facility to support expansion and plans to open a community drop-off at its facility to expand into more municipal recycling.
- TDS plans to open a new MRF at its Creedmoor facility in September 2010 and will have additional capacity to handle materials from throughout the region.

Many of the private companies surveyed wanted to stress that existing local resources are under utilized and there is much planned additional capacity. They would like Austin city officials to support the resources available in the area rather than constructing new public facilities.

Recommendations

- Review all existing service contracts and identify opportunities to align the City's interests with those of its contractors. If appropriate, renegotiate terms to enhance transparency, incentives and innovations.
- Consider co-location of the City's SWS offices and contractor offices in a new single-stream MRF.
- Build on existing investments of private companies and non-profit organizations through competitively solicited service agreements before building new public facilities. Invest public funds in providing services not available from private companies and non-profit organizations. Develop contracts for waste and recycling collection and processing services separate from landfill disposal to maximize competition and minimize vested interest in wasting (as has been done in San Francisco).

Partnership Case Studies

The partnership surveys revealed several tools useful for fostering a strong partnership including: alignment of interests, transparency, frequent contact, letting expectations be known, utilizing the experts, innovations/scope modifications and stability. Four case studies were examined that showcased these characteristics. Opportunities for partnerships with Austin exist with some non-profits, educational institutions and private companies. Austin can make use of these tools to foster improved relationships with contractors and when procuring new services.

Recommendations

- Collect sample contract provisions designed to enhance transparency and goal alignment.
- Ensure that all new and renegotiated contracts and service agreements include these provisions.

DRAFT

Appendix A – Non-City Program Surveys

DRAFT

City of Cedar Park

Contact person: Nanette McCartan

Address: 600 N. Bell Blvd. – Cedar Park, TX 78613

Phone: 512-401-5310

Email: mccartan@cedarparktx.us

Description of services and programs

The City of Cedar Park currently has a contract in place with Central Texas Refuse to collect and dispose of residential solid waste and the collection of recyclables. As of February 1, 2010 the City has enhanced the recycling services provided to our residents. Prior to February 1st, residents were only able to recycle plastics 1 and 2, corrugated cardboard, paper, and aluminum and steel cans. Our recycling services now allow us to accept glass and plastics 1 through 7.

Residents are given two 96 gallons carts that are provided by the City. One cart is designated for solid waste and is collected curbside once per week. Customers are allowed to place up to seven additional refuse items (or bags) curbside for collection. The recycling cart is emptied every-other-week on the residents' regular garbage collection days, using an "A week" and "B week" schedule.

Do you offer compensation for recyclables and/or offer any waste products for re-use such as resource recovery park, artists or reuse in homes (Re-store). No

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

2009 Origin:	Material type			
	MSW	Yard Trimmings/ Food Scraps	Recyclable Material	C&D
Residential MSW	2009- 17,938 tons to landfill 2010- Jan-Apr – 5,767 tons to landfill		2009- 1,249 tons to recycling 2010- Jan-Apr – 780 tons to recycling	

Generators

What percentage of materials collected in 2009 were from City of Austin generators? None

Do you have the capacity to handle/transport more waste from Austin generators? Please describe.
N/A

Cost

Please describe tip fees you pay at your disposal facility. Not provided.

Prices

Each single family residential unit is charged \$16.98 plus sales tax per month.

Diversion rates

In 2009, 6.5% (by weight) of curbside collection was diverted to a recycling facility. Since enhancing our recycling program in February 2010, 14.2% (by weight) of curbside collection was diverted to a recycling facility (overall about 12% diversion calculated for 2010).

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products? No

Can you identify any local manufacturers that may have this capability? Unknown

Landfills

Please indicate the landfills used and tonnage in 2009 that was disposed of at each facility.

List the landfills and tons for each:

- | | | |
|---|--------------------|--------------------------------------|
| 1) <u>2009-Williamson Co Landfill</u> | <u>17,938</u> tons | <u>residential MSW type of waste</u> |
| 2) <u>Jan10-Williamson Co Landfill</u> | <u>1,387</u> tons | <u>residential MSW type of waste</u> |
| 3) <u>Feb-Apr '10- BFI/290 Landfill</u> | <u>4,380</u> tons | <u>residential MSW type of waste</u> |

Expansion Plans/Opportunities

The recycling collected from residential units within Cedar Park is currently transported to the Greenstar facility in San Antonio. An option for a recycling facility in the Austin area would be of interest.

City of Georgetown

Contact person: Rachel Osgood

Address: 101 W. 7th Street, Georgetown, TX 78626

Phone: 512-930-8131

Email: Rachel.Osgood@georgetown.org

Description of services and programs

Residential, commercial and construction and demolition waste is collected and put into transfer trucks to be hauled to the TDS landfill in Creedmoor. Curbside recycling service includes glass bottles (all colors accepted), aluminum cans, steel cans, #1 and #2 plastic bottles, newspapers and inserts, magazines, books with covers removed, white paper, and junk mail. Single-stream service is not provided. Paper products must be separated from other recyclables.

Master gardening and composting classes are provided by TDS for residents of Georgetown several times per year.

Approximately 50,000 cubic yards of brush is mulched annually in Georgetown. Residents with utility service are given free mulch with a copy of their utility bill and a photo ID.

Do you offer compensation for recyclables and/or offer any waste products for re-use such as resource recovery park, artists or reuse in homes (Re-store). No

Materials received

Please indicate the types of material collected in **2009**.

	Material type			
	MSW and C&D - disposed	Yard Trimmings/ Food Scraps	Recyclable Material	C&D
Origin:				
General	56,764		9,070	
Totals	56,764		9,070	

Generators

What percentage of materials collected in 2009 were from City of Austin generators? None

Do you have the capacity to handle/transport more waste from Austin generators? Please describe.
n/a

Cost

Please describe tip fees you pay at your disposal facility. Not provided.

Prices

There are three rate classifications.

Inside city limits (8.25% tax) \$14.35 with recycling

Outside city limits (6.25% tax) \$17.00 with recycling

Extra-territorial jurisdiction (6.25% tax) \$17.95 without recycling

Diversion rates

The City of Georgetown had a diversion rate of approximately 14% in 2009. A breakdown of materials follows:

Brush	2,282
Co-mingled	1,846
Paper	932
Cardboard	101
Metal	193
C&D	3,716

For a total of 9,070 tons diverted from the landfill.

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products? No

Can you identify any local manufacturers that may have this capability? No

Landfills

Please indicate the landfills used and tonnage in 2009 that was disposed of at each facility.

List the landfills and tons for each:

- 1) TDS landfill 56,764 tons MSW and C&D type of waste

Expansion Plans/Opportunities

The City of Georgetown is currently strategizing for a solid waste master plan and is looking at ways to expand their current service offerings. They would like to expand into single-stream recycling and may have the possibility to do this once the TDS MRF opens in September of 2010.

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Austin Independent School District

Contact person: Idella Wilson

Address: 1111 W. 6th Street, Austin, TX 78703

Phone: 512-414-9732

Email: iwilson@aisd.org

Description of services and programs

TDS is the solid waste service provider for all AISD campuses. Recycling of tear-able products (paper and cardboard) is provided at all campuses as well by Balcones (129 schools) and Abitibi (39 schools).

A pilot program began in February 2010 and will run through the end of the semester to recycle cafeteria waste products. This pilot program is being done pro bono by TDS during this time period to determine if the program is economically feasible. Cafeteria waste recycling reduced refuse at these four schools by 40% during a one week period. Currently, AISD does not have the budget to pay for this service over and above their current contract. TDS will determine whether the reduced number of lifts would equal the cost of the expanding the program to all elementary school campuses. AISD and TDS will decide if their contract can be modified to reduce the number of lifts and expand cafeteria recycling.

“Green Teams” and other environmental and sustainability programs are set up at several individual campuses by teachers, PTAs and student volunteers to collect additional recyclables. There is little plastic and aluminum can waste at the elementary and middle school level.

Do you offer compensation for recyclables and/or offer any waste products for re-use such as resource recovery park, artists or reuse in homes (Re-store). No.

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

The amount of material that AISD sends to the landfill could not be quantified by TDS because the refuse produced by AISD is not picked up by trucks that only collect AISD waste; it gets mixed with refuse from other clients. Trying to figure it out by lifts and bin sizes is also inaccurate. TDS said that often the bins are not full.

Generators

What percentage of materials collected in 2009 were from City of Austin generators? 100%

Do you have the capacity to handle/transport more waste from Austin generators? Please describe.

Cost

The rates that AISD pays to TDS for their services are as follows:

Regular School Year

			TDS 2009	
Sz	Yds /mo	Lifts /mo	Rate /Lift	Rate/Mo
4	3204	801	\$10.53	\$8,435.06
6	7794	1299	\$13.02	\$16,912.98
8	15276	1910	\$15.40	\$29,406.76
10	1083	108	\$18.72	\$2,026.44
	27357	4118		\$56,781.24

Summer Schedule

			TDS 2009	
Sz	Yds /mo	Lifts /mo	Rate /Lift	Rate/Mo
4	1600	427	\$11.01	\$4,701.32
6	4029	742	\$13.68	\$10,151.86
8	8049	1076	\$15.98	\$17,187.64
10	831	87	\$18.88	\$1,641.30
	14509	2332		\$33,682.12

Annually

			TDS 2009	
Sz	Yds	Lifts	Rate /Lift	Rate
4	33637	8490	\$10.82	\$91,886
6	82234	13917	\$13.37	\$186,053
8	161633	20412	\$15.79	\$322,333
10	12234	1235	\$18.91	\$23,354
	289738	44055		\$623,627

Balcones and Abitibi collect and recycle paper and cardboard products for free. However, Balcones has informed AISD that this is no longer profitable for them and they will no longer provide this service for free. Abitibi pays each school they collect from a nominal fee (for example at the high school where they collected the largest amount of recyclables they paid them \$153 total). AISD plans to issue an RFP this summer for a contract to provide recycling during the 2010-2011 school year.

Prices

Not applicable.

Diversion rates

Please indicate the types and amounts of materials diverted from disposal in 2009.

430.343 tons of paper and cardboard to Abitibi and 500.13 tons to Balcones. Amounts of other recyclables diverted by individual campuses are unknown.

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products? No

Can you identify any local manufacturers that may have this capability? No

Landfills

Please indicate the landfills used and tonnage in 2009 that was disposed of at each facility.

List the landfills and tons for each:

1) TDS Landfill: Unknown the amount that is sent by AISD as mentioned above, trucks that pick up from AISD campuses service other clients as well. Also, unsure how much of a lift is full when pick up occurs.

Expansion Plans/Opportunities

Increase the cafeteria recycling program to include all 78 elementary schools.

Capital Metropolitan Transportation Authority

Contact person: Perry Dillard

Address: 2910 East 5th Street, Austin, 78702

Phone: 512-389-7411

Email: perry.dillard@startran.org

Description of services and programs

Provides services for public transportation, maintains buses and motor vehicles. Facilities Services maintains all bus stop shelters, park and rides, and transit centers in the Austin and the surrounding area. Services include all janitorial, trash, maintenance and waste streams.

StarTran has the contract for maintenance and facilities services at all CMTA offices and maintenance facilities. CMTA staff collects garbage from litter cans at transfer stations, bus stops, park and rides and other public facilities. Garbage from CMTA offices, maintenance facilities and public facilities is collected at three sites throughout the City. Allied Waste currently collects trash and recycling two times per week from the three city-wide collection sites.

Paper, cans, bottles, cardboard, waste oil, coolant, metals, and wood products from non-public CMTA facilities are recycled. Recycling is not provided at any public facilities.

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

567.79 tons of trash were sent to the landfill in 2009 and 149 tons of materials were recycled.

	Material type			
	MSW - landfilled	Yard Trimming/ Food Scraps	Recyclable Material	C&D
Origin:				
Commercial & multifamily MSW	567.79 tons		149 tons	
Totals	567.79 tons		149 tons	

Generators

What percentage of materials collected in 2009 were from City of Austin generators? 95%

Do you have the capacity to handle/transport more waste from Austin generators? Please describe.
“Not at this time”

Cost

The cost for waste services provided by Allied Waste is approximately \$175,000 per year.

Prices

n/a

Diversion rates

Please indicate the types and amounts of materials diverted from disposal in 2009.

In 2009 CMTA recycled: 51,390 pounds of mixed paper, 33,800 pounds of wood, and 213,280 pounds of metal.

Used coolant, used oil, cans, and bottles were also recycled but the amounts are not quantified.

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products? No, products are taken by Allied Waste.

Can you identify any local manufacturers that may have this capability? No

Landfills

Please indicate the landfills used and tonnage in 2009 that was disposed of at each facility.

List the landfills and tons for each:

1) Allied Waste landfill 567.79 tons MSW type of waste

Expansion Plans/Opportunities

Increase cardboard and paper recycling to reduce the amount of trash and in turn reduce trash disposal trips from twice a week to once per week.

Increase in-house recycling efforts.

CMTA picks up garbage from litter cans at public facilities all over the City. There would be interest in partnering with the City to streamline trash pick up.

CMTA has discussed providing recycling cans at their public facilities many times but has decided there would be too many problems from the public (contamination) for the program to be successful.

DRAFT

Ecology Action

Contact person: Karly Dixon, Co-director

Address: 707 E. 9th St. on the west side of IH-35

Phone: 512-322-0000

Email: karly@ecology-action.org

Description of services and programs

Ecology Action operates a downtown flagship processing center, which operates like a mini-MRF with one horizontal baler and one vertical baler. They accept all recyclables the City of Austin (COA) accepts curbside plus clean and dry plastic bags, cell phones, inkjet cartridges, all metal, and batteries. Batteries that are accepted are taken to the City household hazardous waste facility.

In addition to the downtown flagship processing center, Ecology Action has several drop-off locations including:

- A drop-off facility in Bertram that is funded through a direct tax 25 cents in residents' utility bill.
- A Pflugerville drop-off facility that will be phased out. Pflugerville just started single-stream curbside pick-up for the same items the COA accepts. Pflugerville's solid waste service provider is IESI.
- A drop-off facility is in the Village of Point Venture.

Funded through a private grant – Impact Austin Grant, Ecology Action offers free compartment roll-off, hauling and sorting for all schools. The application process is based on availability, equipment, etc. Ecology Action also provides education programs either in the classroom or at the facility. Educational programs are free and donations are accepted.

Ecology Action has a “Green business” service which offers paid services to businesses and multi-family residences. The price is less than City fees, there is no charge for setup and carts, pick-up costs start at \$40 for eight – 90-gal recycling carts. For the most part pickup is not single-stream as single-stream usually results in soiled paper products, Styrofoam, plastic bags, and full and dirty containers.

Ecology Action provides an event recycling service – ranging from non-profits and community groups for up to 50,000 people. Ecology Action loans equipment for free for full service event recycling depending upon customers.

Ecology Action provides community service as well. Job training programs are offered– currently for the School for the Deaf. Ecology Action has logged over 15,000 hours/year with their community service programs.

Do you offer compensation for recyclables and/or offer any waste products for re-use such as resource recovery park, artists or reuse in homes (Re-store).

Food-grade metal barrels, blue glass, and other sorted reusables are sold if the market supports it.

Otherwise, their resources are offered for free use to the public. Ecology Action will pay for processed materials such as baled cardboard to sell to paper mill.

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
OCC	62.77	76.08	60.24	47.549	43.81	49.09	39.039	60.75	52.24	52.832	62.69	57.8	664.89
ALUM	3.083	0	3.43	1.85	2.19	2.47	1.975	2.345	2.02	1.99	1.73	1.75	24.833
GLASS	80.977	79.28	77.255	91.04	68.44	114.88	98.056	95.876	95.724	89.035	101.52	93.163	1085.246
MP	81.89	97.829	59.846	65.17	66.226	59.778	60.16	56.864	67.552	67.162	59.219	57.316	799.012
HDPE	2.465	4.626	2.88	7.94	8.08	2.41	1.495	3.137	4.192	4.448	5.635	4.106	51.414
PETE	7.88	0	6.408	0	10.84	9.14	10.506	8.133	6.321	5.737	5.578	4.01	74.553
3-7 PLASTIC	4.29	0	5.993	0	4.92	0.37	15.23	0.69	6.866	4.852	3.574	4.793	51.578
SWL	3.69	0	0	0	5.97	2.165	0	0	0	0.511	1.349	0	13.685
STEEL	8.545	6.19	10.84	10.85	11.075	10.297	4.535	6.91	7.62	5.24	4.93	10.25	97.282
LDPE	0.606	1.035	0	0	0.15	2.05	0	2.102	0	1.595	0	0	7.538
TOTAL	256.196	265.04	226.892	224.399	221.701	252.65	230.996	236.807	242.535	233.402	246.225	233.188	2870.031

Majority of incoming materials are self-haul and approximately 80 percent are recyclables.

Generators

What percentage of materials collected in 2009 were from City of Austin generators?

Do you have the capacity to handle/transport more waste from Austin generators? Please describe.

Cost

Typically there are no tipping fees at Ecology Action, unless a private hauler makes drops at Ecology Action. Private haulers pay an annual green-use fee of \$500.

Prices

Green Business Recycling Service

Ecology Action provides comprehensive recycling solutions and consulting for Apartment/Condo, Bar, Commercial, Office, Restaurant, Retail, and one-time pick-ups. Ecology Action currently services over 20 area businesses and apartment complexes.

Ecology Action will consult with interested groups to find waste solutions from disposal to pick-up and tailor a pick-up program to their needs. EA's basic pick-up agreement includes six 55-gallon barrels and a Gaylord box for \$40 a pick-up. EA accepts plastic #1-7, paper, cardboard, metal, and glass. Pick-ups can be scheduled as needed, on a regular schedule, on-call, or one-time.

Rate Schedule:

1-5 mile radius: \$40

5-10 mile radius: \$55

10-15 mile radius: \$70

15-20 mile radius: \$85-more depending on distance

Diversion rates

Please indicate the types and amounts of materials diverted from disposal in 2009.

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products? Case by case basis, such as blue bottles then they sorted them and now sell them.

Can you identify any local manufacturers that may have this capability? No

Landfills

Ecology Action uses IESI for hauling and landfilling.

Expansion Plans/Opportunities

Ecology Action is planning on opening a composting facility within the year. Start with commercial and business pick-up and add drop-off. No residential hauling planned at this time.

Goodwill Industries of Central Texas

Contact person: Robin Llewellyn

Address: 1015 Norwood Park Blvd., Austin, Texas 78753

Phone: 512-637-7177

Email: robin.llewellyn@austingoodwill.org

Description of services and programs

Goodwill's Environmental Business Services (EBS) division works with local organizations, government agencies and corporations to address electronic waste concerns. Over the past decade, our environmental programs have evolved into an integrated electronic recycling approach that now diverts more than 250 tons of electronic waste from landfills each month. We institute economically and environmentally sound methods to recycling and reusing donated electronic equipment. Goodwill's electronic recycling initiatives afford another opportunity to generate revenue to fund our mission while conserving the environment. We encourage the community to be conscious of their environmental impact, both locally and globally, and responsibly dispose of their electronic waste.

In addition to computer electronics, Goodwill recycles and salvages many other household items that have been donated to our organization but cannot be sold in our stores. These items include household electronics and televisions, textiles, shoes, plastics, metal, paper, cardboard and other misc. items. Salvage items may be sold in bulk, at auctions, or donated for re-use.

Retail Stores and Computer Works Retail Stores

Our regular retail stores are an excellent outlet for items no longer valued in one household but are appropriate for re-use in another household. Goodwill's Computer Works retail store houses our computer recycling program where donated computers are de-manufactured and either resold or recycled. Revenues generated from stores help fund our mission.

Computer Museum

The Goodwill Computer Museum provides interactive exhibits and programs that educate the community on the evolution and use of computer technology. We promote environmental awareness and the importance of recycling end-of-life electronics while also raising awareness of Goodwill's mission by reaching out to the technical community in Central Texas.

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

Origin:	Material type			
	MSW	Yard Trimmings/ Food Scraps	Recyclable Material	C&D
Residential MSW	56,842,760			
Totals	56,842,760 pounds Household items donated to Goodwill		Of the total pounds donated – 24,002,656 lbs sold in store – 20,861,365 lbs designated recycling or salvage.	

Generators

What percentage of materials collected in 2009 were from City of Austin generators?

Unknown

Do you have the capacity to handle/transport more waste from Austin generators? Yes

Cost

\$35 per ton for landfill tipping fees.

Prices

There is no charge to donors.

Diversion rates

Approximate Amount of Donations Sold:

Books	1,002,482 pounds
Cardboard	460,688 pounds
Computer Electronics	3,051,826 pounds Austin
	3,371,404 pounds (outside areas)
Metal	1,303,070 pounds
Paper	460,200 pounds

Plastic	478,432 pounds
Shoes	4,482,140 pounds
Televisions	296,514 pounds
Textiles	8,993,368 pounds

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products?

No.

Can you identify any local manufacturers that may have this capability? No.

Landfills

Please indicate the landfills used and tonnage in 2009 that was disposed of at each facility.

1) <u>Allied Waste / Republic</u>	<u>1,642.72 tons</u>	<u>MSW</u> type of waste
2) <u>Waste Management</u>	<u>3,705.75 tons</u>	<u>MSW</u> type of waste
3) <u>Texas Disposal</u>	<u>640.90 tons</u>	<u>MSW</u> type of waste

Expansion Plans/Opportunities

Goodwill is working towards a goal of zero waste by 2012. Goodwill will be moving into a new 124,000 SF facility in November. They see this as an opportunity to increase recycling (and in turn increase revenues to fund their mission) and foster partnerships with local businesses and the City. Goodwill mentioned the possibility of having space to act as a “drop” station where they could collect recyclable materials for their partners.

Goodwill sees opportunities to partner with the City providing workforce for a future Materials Recycling Facility (MRF).

University of Texas

Contact person: Jeffrey Basile

Address: 1301 E. Dean Keeton Street, H7080, Austin, TX 78722

Phone: 512-232-7823

Email: Jeff.Basile@austin.utexas.edu

Description of services and programs

UT's Recycling and Sustainability Branch oversees the recycling and solid waste services on campus. Two crews comprised of UT staff pick up solid waste each day they have full-sized trash trucks that take solid waste to the TDS landfill. UT pays \$32/ton. Paper and cardboard are collected for recycling and sent to Balcones. Balcones reimburses UT 75% of the official board rate for these products.

The Campus Environmental Center (CEC) is student run and also falls under the Recycling and Sustainability Branch. There is a staff advisor and seven PhD students that work and 1,000-1,200 students that volunteer. The CEC is responsible for recycling plastics #1 and #2 and aluminum cans. On a volunteer basis office workers, students and staff put plastic and aluminum in bins that volunteers pick up. They store recyclables until can be taken to BFI for recycling. UT is reimbursed for aluminum and pays an inexpensive price for plastics. "Trash to Treasure" program is a major fundraiser for the CEC. The CEC picks up items that are left or donated when students move out of dorms and store them for the summer. These items (refrigerators, bikes, furniture, etc.) are then sold when the fall semester begins.

UT does not have the capability to handle roll-off containers so there are two contractors on campus that handle roll offs.

Surplus Properties – Surplus properties collects and stores items such as bicycles, office/classroom furniture, pallets, vehicles, etc. for auctions three times per year. Re-use is the goal of this program.

Landscaping – They are in facilities services department. Branches, grass, limbs etc. from landscaping are sent to TDS landfill. These landscaping materials are collected in a separate roll off but the material is landfilled, not mulched.

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

Waste is from September 2009- 19 May 2010.

Origin:	Material type			
	MSW - tons disposed	Yard Trimmings/ Food Scraps	Recyclable Material – recycled paper & cardboard	C&D
Commercial & multifamily MSW	1,865.06 tons		944.85 tons	
Totals	1,865.06 tons		944.85 tons	

Generators

What percentage of materials collected in 2009 were from City of Austin generators?

Do you have the capacity to handle/transport more waste from Austin generators? Please describe.

Cost

UT pays \$32/ton for disposal at TDS.

Prices

Please describe prices for services provided. N/A

Diversion rates

Please indicate the types and amounts of materials diverted from disposal in 2009.

Wooden pallets – 40,000 pounds diverted in 2009 by reuse.

Surplus properties – Three auctions a year auction off excess properties, vehicles, furniture, wooden pallets, etc.

Computers and electronics donated to Texas Prison Institute. No weights for surplus properties or computers and electronics.

UT is mandated to donate their old used computers and electronics to Texas Prison Industries.

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products? No

Can you identify any local manufacturers that may have this capability? No

Landfills

Please indicate the landfills used and tonnage in 2009 that was disposed of at each facility.

Construction and demolition waste is sent to the landfill. Most contracts for new buildings or renovations include requirements for contractor to recycle some of the waste and or used some recycled products.

List the landfills and tons for each:

- 1) TDS landfill 1,865.06 tons MSW, C&D, yard type of waste

Expansion Plans/Opportunities

Investigating possible Styrofoam recycling. Would like to see vendor take back with a pre-printed label in computer box to send back the packaging.

UT is putting up two test bins this summer for collecting glass containers.

The CEC is looking at developing an incentive-based program where students/groups may be paid to turn in plastic bottles.

UT will be conducting a trash audit soon to determine what items are actually being thrown away.

Tracking weights on recyclable materials.

UT is currently in the process of awarding a bid for commercial composting that will roll out in the next six months at all Department of Housing and Food Service dining locations. It is estimated that approximately 3,000 cubic yards of compost per academic year will be produced. Any food items can be composted but no trash it will be up to post-consumer sorting so signage and education will be a factor. There are three café locations where items are typically taken to go, UT has already switched to compostable disposable. Custom bins have been ordered and will be placed in all dining locations so food waste, trash and recyclables can be easily separated.

Balcones Resources

Contact person: Kerry Getter

Address: 1101 East 11th Street, Austin, TX 78702

Phone: 512-472-3355

Email:

Description of services and programs

Balcones Resources services commercial recyclers and provides for residential drop off of recyclables. They have a fleet of vehicles to transport and also use third party haulers such as Waste Management and Texas Disposal Systems. They operate a MRF in Texas on East 6th Street where more than 98% of all materials brought in are diverted from the landfill. They provide document and product handling. Self-haul vehicles bring in materials or they have a fleet of trucks that can pick up and shred on-site or pick up and transport for off-site shredding.

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

Origin:	Material type			
	MSW- disposed	Yard Trimmings/ Food Scraps	Recyclable Material	C&D
Totals (tons)	1,200		58,800	

Generators

What percentage of materials collected in 2009 were from City of Austin generators?

In Central Texas Balcones Resources services the area from Waco to San Antonio and Marble Falls to Bastrop. Mr. Getter estimates that 90% of all materials collected in 2009 were from City of Austin generators.

Do you have the capacity to handle/transport more waste from Austin generators? Please describe.

Yes. Currently, Balcones Resources processes 4,000-5,000 tons of recyclable materials per month and has the capacity at their existing materials recycling facility (MRF) to process another couple of 1,000 tons per month. Additionally, Balcones Resources is in the planning stage for construction of a new MRF in central Texas.

Cost/Prices

Balcones compensates or charges customers based on a formula that is a function of the type of material, quality and handling costs. For example they would charge to pick up materials that were co-mingled or of low value and low volume. If there is a high volume of good quality material and Balcones has the means to pick up the material efficiently then Balcones would pay. According to Mr. Getter, Balcones Resources pays for most of the materials brought in for recycling.

Diversion rates

98% of materials sent through Balcones are diverted from the landfill. They process plastics #1-#7, cardboard, aluminum, limited glass, carpet and a variety of non-traditional manufacturing wastes from commercial accounts.

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products?

All of the recyclable materials are sold; however, most are not going to local manufacturers.

Can you identify any local manufacturers that may have this capability?

Mr. Getter did not know of any local manufacturers that have this capability.

Landfills

Please indicate the landfills used and tonnage in 2009 that was disposed of at each facility.

List the landfills and tons for each:

Mr. Getter said they typically use Waste Management landfill for their 1,200 tons of waste per year.

Expansion Plans/Opportunities

Balcones Resources plans to construct a new MRF in the central Texas area. Currently they are in the planning phase.

Central Texas Refuse

Contact person: Ralph Rocco

Address: P.O. Box 18685, Austin, TX 78760

Phone: 512-243-2833

Email: manager@centraltexasrefuse.com

Description of services and programs

Central Texas Refuse provides frontload, side-load and roll off services including multifamily housing, and frontload cardboard recycling.

Do you offer compensation for recyclables and/or offer any waste products for re-use such as resource Recovery Park, artists or reuse in homes (Re-store). Central Texas Refuse does not offer a rebate but these items would be priced at a lower rate than regular solid waste.

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

	Material type			
	MSW	Yard Trimmings/ Food Scraps	Recyclable Material	C&D
Origin:				
Commercial & multifamily MSW	COA – 102,595		COA – 5,129	
C&D			4,801	28,034
Totals	102,595		9,930	28,034

Generators

What percentage of materials collected in 2009 were from City of Austin generators?

Do you have the capacity to handle/transport more waste from Austin generators? Please describe.

Yes, they would increase the size of their fleet.

Cost

Please describe tip fees you pay at your disposal facility. \$30 per ton

Prices

Please describe prices for services provided. Average \$3.50 per yard.

Diversion rates

Please indicate the types and amounts of materials diverted from disposal in 2009.

Class 1 = 5% 5,129 tons (paper, cardboard and cans)

Class 4 = 17% 4,801 tons (lumber, sheetrock and concrete)

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products? No

Can you identify any local manufacturers that may have this capability? No

Landfills

Please indicate the landfills used and tonnage in 2009 that was disposed of at each facility.

List the landfills and tons for each:

- | | | |
|---------------------------------------|---------------------|--------------------------|
| 1) <u>Sunset Farms Landfill</u> | <u>102,595</u> tons | <u>Type I (MSW)</u> |
| 2) <u>IESI Travis County Landfill</u> | <u>28,034</u> tons | <u>Type IV (C&D)</u> |
| 3) <u>Tri Recycling Landfill</u> | <u>4,801</u> tons | <u>Type IV (C&D)</u> |

Expansion Plans/Opportunities

Central Texas Refuse would love to have a single-stream facility to grow the commercial side of our business.

Texas Disposal Systems, Inc.

Name of facilities: Texas Disposal Systems, Inc. (TDS); Texas Disposal Systems Landfill, Inc. (TDSL); Texas Landfill Management, LLC (TLM); Garden-Ville

* For purposes of this survey response, use of “TDS” shall encompass all entities owned and operated.

Contact person: Bob Gregory, Chairman & Chief Executive Officer (CEO)

Address: Mailing: P.O. Box 17126, Austin, Texas 78760-7126

Phone: 512-421-1300

Email: bgregory@texasdisposal.com

Description of services and programs

Started in 1977 and headquartered in Austin, TDS is a full service waste and recyclables collection company with operations located throughout the state of Texas. Primary operations include, Austin, San Antonio, Georgetown, Alpine, San Angelo, and Victoria, Texas. Existing services offered include, but are not limited to:

- Residential, commercial and industrial waste and recyclables collection;
 - TDS proudly services over 100,000 customers.
 - TDS provides residential automated and semi-automated collection, commercial frontload and side-load collection, industrial compactors, and 14-40 cubic yard open top roll offs.
 - See www.texasdisposal.com for additional details about TDS services.
- Special waste and asbestos hauling;
- Green Event Services;
 - Special event waste collection and diversion of recyclables and organics. TDS is currently achieving 75% diversion rates for select customers, like the New Backyard amphitheater. TDS anticipates its diversion rates will exceed 80-90% in the near future.
- Portable storage units;
 - Portable 20’x8’ overseas shipping containers offered to construction job sites, remodels, etc.
- Certified document destruction services;
- Natural disaster clean up services;
- Smart Rewards
 - Rewards program incentivizing TDS customers to recycle.

Opened in 1991, the Texas Disposal Systems Landfill was the state's first facility to be awarded a multi-use permit for landfilling, composting and recycling operations (TCEQ MSW Permit No. 2123). Existing operations at the facility include, but are not limited to:

- Contiguous tracts of land comprising 1,750 acres;
- A 732 acre permitted municipal solid waste landfill, composting and recycling facility with a citizens drop off, buyback and resale center;
- A brush grinding, compost production facility and organics product blending, including a wholesale and retail store (Texas Organic Products & Garden-Ville #7);
- Construction & Demolition waste sorting, Green builder authorizations and comprehensive reporting for applicable certifications;
- 104,000 square foot Materials Recovery Facility (under construction and scheduled to open in Sept. 2010)
- Alternative fuel processing;
- Scrap metal processing;
- Scrap tire storage & processing;
- A 210 acre industrial-zoned Eco-Industrial Park located within the Village of Creedmoor, Texas;
- A tree farm including approximately 11,000 trees;
- A Municipal Utility District located on a portion of the property within the jurisdiction of Creedmoor (approved in 2007 by the Texas Legislature);
- A planned wastewater treatment plant, brackish water desalination plant, landfill gas to energy plant and commercial drive through game park;
- A planned multi-media interactive education center, profiling all aspects of the TDS integrated facility development model; and
- An event pavilion and exotic game ranch preserve with approximately 1,500 animals representing over 60 different species.

Materials received

The TDS landfill, compost and recycling facility serves as a regional facility accepting solid waste and recyclables from 26 Texas counties. In addition, TDS operates multiple satellite facilities that support the company's south east Travis County facility. Annually, TDS and its affiliated companies and/or satellite operations collect, process, compost and recycle the following estimated volumes:

MSW (residential, commercial, industrial).....	749,000 tons
<u>Recyclables & Reusables (curbside & commercial recyclables, organics, metals).....</u>	<u>...197,000 tons</u>
Total Estimated Volume:	946,000 tons

Generators

Approximately 53% or 500,000 tons of municipal solid waste, recyclables, organics and metals are generated from within the CAPCOG region.

Cost

TDS and its affiliated companies are 100% privately held and compete in a highly competitive industry dominated by publically traded international companies. Accordingly, TDS strictly adheres to a policy of not disclosing and/or releasing any financials associated with its operations.

Prices

The Texas Disposal Systems Landfill is open to the public Monday through Saturday 7:00am – 7:00pm or dark (whichever occurs first). Large commercial customers may qualify for volume discounts and access to the facility 24 hours per day Monday through Saturday. Posted gate rates at the facility are provided below:

SOLID WASTE DISPOSAL/PROCESSING CHARGES

- | | |
|-------------------------------|----------------------------------|
| ▪ Car/Pick-up/SUV | \$35.00 per load minimum |
| ▪ Car/Pick-up/SUV and Trailer | \$70.00 per load minimum |
| ▪ Commercial Vehicles | \$35.00 per ton; \$70.00 minimum |
| ▪ Uncompacted Wastes | \$8.00 per cubic yard |

FEEES

- | | |
|------------------------------|-------------------------------|
| ▪ Unsecured Loads | \$20.00 each; tarps available |
| ▪ Freon & Compressor Removal | \$20.00 each removal |

RECYCLABLE MATERIALS

- | | |
|--|--------------------------------|
| ▪ Wood (untreated and unpainted) | \$5.50 per cubic yard |
| ▪ Brush & Yard Waste (no trash) | \$5.50 per cubic yard |
| ▪ Brush & Yard Waste (with trash) | \$8.00 per cubic yard |
| ▪ Scrap Metal/Large Appliances (no Freon/compressor) | Rates vary depending on market |
| ▪ Tires | Rates vary depending on size |
| ▪ Other Recyclable Reusable and Compostables | Rates vary; see gate attendant |

Diversion rates

Based on the figures illustrated above, TDS estimates its current diversion rate to be approximately 26-30% (figures are calculated to equal about 21%).

Recycled product disposal

The Texas Disposal Systems Landfill includes a citizen drop off, buyback and resale center. This customer service friendly facility is staffed by 5-7 full time employees who assist TDS in recycling and/or diverting from landfill disposal over 10,000 tons per year since opening in 1991. At the facility, customers may safely drop off waste and recyclables, as well as shop or browse through 1,000s of reuseables displayed under cover and made available for sale. The *Austin Chronicle* has selected this facility as being “The Best Unadvertised Garage Sale in Austin.”

Landfills

Over 90% of waste collected by TDS for landfill disposal is direct hauled or transferred to the Texas Disposal Systems Landfill, Inc. or City of Alpine Landfill.

Expansion Plans/Opportunities

For over 25 years, TDS has been planning and working toward the fulfillment of its vision for a comprehensive, regional solution for the responsible management of waste resources through an environmentally and economically responsible balance of recycling, composting and disposal. TDS is a national leader in innovative and economical landfill diversion and recycling practices. The 1,750 acre TDS facility located in southeast Travis County uniquely provides TDS the opportunity to refine its dynamic business model into a package of products, services and infrastructure that the company intends to replicate in other areas of Texas and the United States.

River City Roll Offs

Contact person: David Rodewold

Address: Daffin Lane, Austin, TX

Phone: 512-832-8300

Email: david@rivercityrolloffs.com

Description of services and programs

River City Roll Offs (RCROs) provides 30 cubic yard (yd³) and 12 yd³ roll off containers for construction and demolition waste. Their service includes delivery of the roll off, hauling and sorting and processing the materials. RCROs recycles a wide variety of products including wood, shingles, aggregates, ferrous and non-ferrous metals, plastics, paper and cardboard (PVC no longer accepted and shingles have been added). Materials are co-mingled during collection and sorted and processed at the RCROs facility.

RCROs offers a construction waste management service that provides clients with reporting volumes and weights of materials to assist with LEED accreditation.

RCROs is a licensed transfer facility allowing more leniency in materials accepted. As such, they are allowed to vary from the stricter diversion rates, with a notice of intent. This allows RCROs to accept more diverse materials with a greater amount of contamination.

Do you offer compensation for recyclables and/or offer any waste products for re-use such as resource recovery park, artists or reuse in homes (Re-store).

A small amount of materials are sold to a sister company Backyard Salvage and Garden, 111 E. Koenig Lane. This retail nursery and store is similar to the Habitat Re-store but with more selective items such as restoration pieces and antiques.

Materials received

Please indicate the types of material collected in **2009**. Tons should reflect the weight of incoming material prior to any recovery or diversion steps are applied.

RCROs provides roll offs to construction sites and accepts construction and demolition waste. Approximately 95% of materials that are collected are recycled by RCROs. A small portion of that goes to Backyard Salvage and Garden, the remaining majority is processed and sold.

RCROs has a yearly capacity of 225,000 tons and could handle more with modifications depending on materials. They are currently operating below capacity.

Generators

What percentage of materials collected in 2009 were from City of Austin generators? They service Austin and surrounding areas such as Marble Falls, Dripping Springs, and Kyle. Approximately 60-70% of waste is from City of Austin generators.

Do you have the capacity to handle/transport more waste from Austin generators? River City Roll Offs is currently operating at 25-50 percent capacity. They would have capacity to transport and process additional waste and they have infrastructure available to support expansion if it is warranted.

Cost

Competitive industry \$35 per ton for disposal.

Prices

Please describe prices for services provided.

Central Austin - \$350 for 30 cubic yard roll off which includes delivery, hauling and disposal. Price depends on materials and where the roll off is delivered to, they price by zip code.

Diversion rates

Please indicate the types and amounts of materials diverted from disposal in 2009.

Recycled product disposal

Do you currently market any of the materials you collect to local manufacturers that use recycled/reclaimed products? RCROs processes and sells various commodities most are shipped and not used locally. Some of the processed materials may return to Austin but for example all metal shipped to mills that are not located near Austin.

Can you identify any local manufacturers that may have this capability? No

Landfills

RCROs has accounts with all the landfills in the area and which one they used depends upon the location of the roll off.

Expansion Plans/Opportunities

RCROs is happy with its size and has no immediate expansion plans. They have capacity to accept more C&D waste as they are operating at an estimated 50% or more below capacity. RCROs has more than enough infrastructure and could easily expand if there was a need.

RCROs is planning to expand into municipal recycling taking cans, cardboard, etc. at a community drop-off center at their Daffin Lane facility. They are unsure when this service will begin.

RCROs believes there is an opportunity for the City of Austin to utilize the existing facilities and business resources to provide their recycling needs. Helen Gilbert, Attorney for RCROs, mentioned a regionalized concept possibly splitting the City into quadrants for disposal and recycling purposes. Ms. Gilbert stressed that the existing private service providers are experts in the field and they are currently operating successful MRFs in the Austin area. Ms. Gilbert and Mr. Rodewold believe the COA has unutilized resources already available to them.

DRAFT

Appendix B – Partnership Case Study Surveys

DRAFT

City of Napa and Napa Recycling and Waste Services

Partners: City of Napa (public) and Napa Recycling and Waste Services (private)

Website: <http://www.cityofnapa.org>

Contact name and contact information: Kevin Miller 707-257-9200 ext. 7291, kmiller@cityofnapa.org

Description of partnership

The MRF was built in the early 1990s with an equity share agreement between the City and a local recycling company, Napa Garbage Service. At the end of the term (2005), the City and Napa Garbage Service would each have 50% ownership in the facility and the City would have the right of first refusal to purchase entire ownership in the MRF which they did. In January of 2004 the City closed escrow and had 100 % ownership of the MRF.

Having complete ownership of the MRF put the City in a very competitive position to negotiate a contract with an operator. The bidders submitted on a collection contract and also a processing contract; the City could have chosen a separate contractor for each aspect but they chose to have only one contractor. The City allowed for partnerships within those bidding because they asked for experience and expertise in all of the following areas of solid waste management: 1) Unions, 2) Collection services, 3) Operating a MRF, 4) Composting, 5) Construction and demolition, 6) Financial.

The City selected a four company partnership composed of four family operated businesses that formed a LLC. The City laid out the contract in the solicitation and two of the key factors in their selection were 1) cost and 2) companies had to provide written exceptions to the contract in their bid, the winning company had no exceptions. The City's technical staff summarized the bids and advised the City Council however, all decisions were ultimately made by the City Council in open council sessions. Companies bidding on the contract could have been eliminated if they contacted elected officials and there were no negotiations, all promises were made in writing. The initial contract was for 10 years with four one-year renewal options.

Contractual arrangement

Contractor is guaranteed three (3) percent indexed for inflation. They also get:

- Share of materials sales. 100% of money goes to City, they give 30% of materials sales to the contractor.
- A base number of tons was established in the initial contract in each of the four primary processing areas (wood, MRF, composting and C&D) which totaled to 80,000 tons per year. The Contractor incurs costs for exceeding the base tonnage and costs for operating each of the processing areas but for whatever tonnage they exceed the 80,000 tons base the cost/unit went

down. The City pays the contractor a per unit cost for exceeding the base. For example in 2009 the contractor processed 95,000 tons and received \$750,000.

- In the contract it states that 50% of materials have to be diverted. If less than 50% is diverted then the Contractor incurs a financial penalty but they receive incentive pay for diverting more than 50%. The incentive pay escalates based on how much above 50% diversion they are.
- Every third year of the contract the City and Contractor go through a cost review to “reset” the base. For example, contract was based on Contractor servicing 21,000 residential customers but in 2008 they serviced 21,500 residential customers. During contract review, the City awarded them 500 more units of cost since the customer base had grown.

Advantages and disadvantages

Advantages

Transparency – The City is the gatekeeper and maintains operations of the scale.

Aligned interests – There is a mutual interest in expanding recycling. If there are max rates for provider than more recycling erodes their customer base since recycling is free to customers. Napa wanted to change this so they increased the financial stake the contractor has in recycling.

New ideas - Contract allows City and Contractor to change the scope in mid-contract. For example, the Contractor noticed a lot of whole colored bottles would go through the pre-sort area (not broken pieces) so they came up with a proposal to add two more sorters to separate bottles by color making them more valuable. The City paid 70%, the Contractor paid 30% for new equipment and they split profits 70% and 30%, respectively, on materials sold.

Disadvantages

Incentive structure for a mixed C&D transfer station. The Contractor just started operating a transfer station for C&D and the City is not the gatekeeper. They are in the process of revising the incentive structure so the City can maintain transparency and trust with the Contractor that they value.

Boulder County and Eco-Cycle

Partners: Eco-Cycle (private nonprofit) and Boulder County Government.

Website: www.ecocycle.org

Contact name and contact information: Eric Lombardi, Eco-Cycle Executive Director, 303-444-6634, eric@ecocycle.org

Description of partnership

Eco-Cycle created the first MRF (Materials Recycling Facility) in Boulder County in 1979, and grew it as a private nonprofit until 2001 when, in partnership with Boulder County, a new, modern and public recycling facility was built with funds from a special short-term sales tax. Eco-Cycle basically handed over its “book of business” to the Government in exchange for a creative contract approach. While the government retained final say on operations and business decisions, Eco-Cycle was given full responsibility to operate the facility and achieve three benchmarks: (1) operate at low cost; (2) market material for high revenues; and (3) grow the amount of tons being recycling through the facility. Revenues from sales of materials belong to the County each month. From those revenues monthly payments are as follows:

- Eco-Cycle receives a fee over and above operating costs that fluctuates between 7-9% of sales revenues;
- Payment back into the County Recycling Fund that funded the construction of the single-stream MRF – \$50,000 per month;
- Payment of \$10 per ton on every ton processed into a new equipment fund;
- Payment equivalent to two percent of monthly sales into a Bad Markets Fund. This fund ensures that Eco-Cycle will never have to charge haulers who bring in materials;
- Payment to private haulers according to what markets are paying and/or according to any policy goals that Eco-Cycle supports. For example, now that they are operating a single-stream MRF, Eco-Cycle would like haulers to collect single-stream recyclables from local businesses. To encourage this, Eco-Cycle is paying premium rates to haulers bringing in commercial single-stream recyclables. No formula has been established for payments to private haulers and the payments fluctuate.

Contractual arrangement

Please describe how this partnership is arranged and what makes it work. (See above) Eco-Cycle’s contract was for five years, with two five year roll-over options. Eco-Cycle is currently in the second roll-over phase.

Advantages and disadvantages

Advantages

The advantages to the Community are clear, they are being protected and serviced by a mission-driven organization (Eco-Cycle) who has a primary mission of growing recycling and a secondary mission of making a small profit. The contract with the County ensures a small profit, thus they are free to focus on creating new and innovative recycling programs, which Boulder, CO is famous for, primarily because of Eco-Cycle pushing the envelope here for over 30 years and the excellent coordination with the local governments. Eco-Cycle is a very experienced service provider in the area providing programs at a low profit level, plus, Eco-Cycle indicates that they return all those profits to the Community in the form of new programs.

Disadvantages

The disadvantages are from growing pains, and learning experiences. The biggest one so far has been the role of the government staff who oversees the contract and how involved they need to be in the “business side” of all the activities required to fulfill their mandate to protect the public interest. The fundamental challenges to solve are related to the fact that government is, appropriately, a “low risk taker” while successful entrepreneurs need to be high risk takers. Balancing those dynamics are an on-going process. The example that has been most challenging has been the process of facility upgrading and improvements. As a private entity, Eco-Cycle historically used their experience, knowledge and network of contacts to make any changes needed to facilities we owned. But under the new contract, they are forced to make change through the government procurement process. But most problematic of all is that Eco-Cycle, as a private entity, is not given control over this government procurement process since it must be done by government staff, and the flaw in this approach is that the private vendors don’t get to interact directly with Eco-Cycle but instead interact with the government staff who may not have the experience or knowledge to actually force the creation of the most cost-effective and technological result. The vendors that get chosen by the government staff have been selected because they fulfill the government criteria the best. This situation is an on-going challenge.

City and County of San Francisco Recycling and Recology

Partners: Recology (private company) and City and County of San Francisco (public agency)

Website: <http://www.sfenvironment.org/> and <http://www.recology.com/>

Contact name and contact information: Robert Haley, Zero Waste Manager, San Francisco Department of the Environment 415-355-3752 Robert.Haley@sfgov.org

Description of partnership

The City and County of San Francisco and Recology have an unusual partnership arrangement. Recology has the exclusive right to provide refuse collection for a fee within the City. However, since Recology does not have a contractual agreement with the City, the City influences Recology's activities through regular communications, the ratemaking process described below and other means. Since the City and Recology must work together (unless the 1932 ordinance is changed by a vote of the people), the City and Recology have developed mechanisms to work cooperatively to implement the City's goals of 75 percent diversion by 2010 and zero waste by 2020:

- Senior program managers from the City's Department of the Environment and Recology meet weekly to review ongoing tasks and resolve outstanding issues;
- The City provides commercial technical assistance and outreach to commercial businesses through third party contractors who work closely with Recology staff to provide services to commercial customers;
- The City provides Environment Now interns and volunteers to provide outreach to businesses and multifamily buildings;
- Recology develops recycling processing and composting infrastructure, construction and demolition debris processing, public area drop-off diversion, and new anaerobic digestion technology based on investments approved by the City through the ratemaking process.

Contractual arrangement

SF Recycling & Disposal, Inc., Sunset Scavenger Company and Golden Gate Disposal & Recycling Company (the Companies) are subsidiaries of Recology providing recycling, composting, and trash collection and processing services to residents and businesses in San Francisco. The Companies are regulated according to the terms of the 1932 Refuse Collection and Disposal Initiative Ordinance. The 1932 Ordinance divided the City into 97 exclusive collection routes serviced by licensed refuse collectors. Over time, all of these collection routes were assumed by the Companies.

Under the 1932 Ordinance, the City approves and sets residential garbage rates about every five years. The ratemaking approach is outlined in the 1932 Ordinance.

In the 2006 Rate Application, the Companies submitted what they call an "Alternative Combined Presentation," which combined the revenues and expenses of the two collection companies: Sunset Scavenger Company and Golden Gate Disposal & Recycling Company. The Companies have stated

that the Combined Presentation was submitted in response to past City and ratepayer requests to see financial and program information for both companies so as to improve the transparency of the ratemaking process.

The 2006 commercial rates use the customers diversion rate as the discount on the volume-based collection bill (i.e., one black, one green, and one blue container = 67 percent discount).

<http://library.municode.com/HTML/14131/level1/A1.html>

Advantages and disadvantages

Advantages

There are several advantages to this arrangement:

- Close coordination and weekly meetings allow City staff and Recology staff to develop good working relationships which help them to align their strategies and programs.
- The ratemaking process is resource-intensive, but it is initiated only about once every five years. This allows the City and Recology to work collaboratively for several years between ratemaking processes (which can be confrontational).
- Strong political leadership and staff expertise have resulted in innovative policy initiatives (mandatory recycling and composting, plastic bag ban, cigarette butt fee) and state-of-the-art programs (“fantastic three” – green, blue, black collection carts, restaurant and apartment food scrap diversion, comprehensive school recycling and composting program).
- The Companies are highly motivated to please the City and ratepayers to maintain their profitable, evergreen monopoly.
- Not having to conduct procurement processes or manage contracts and dealing primarily with one service provider simplifies City administration, communications and information gathering.
- The system is very flexible and engenders long-term relationships and planning.

Disadvantages

There are some disadvantages to the current arrangement:

- Since there is no contractual agreement between the City and Recology, the City must compel Recology to provide the services it wants in other ways. Management is dependent on the relationships built between the senior managers at the City and at Recology. Changes in staffing can affect the City’s ability to get what it wants from Recology.
- Only Recology may provide refuse and recycling collection for a fee in San Francisco. There are some specialty recyclable materials that are not efficiently or effectively handled by Recology. Therefore, generators and specialty recyclers must sometimes operate “under the radar” or Recology and the City must “look the other way”, require the material to be handled through

Recology (where, depending on the material, it may not be diverted effectively) or the material doesn't get recovered.

- Since only Recology may provide refuse and recycling collection for a fee in San Francisco, some generators may be paying more for collection services than they would pay on the open market.

City of Berkeley and Urban Ore

Partners: Urban Ore (private company) and City of Berkeley (public agency)

Website: <http://urbanore.ypguides.net/>

Contact name and contact information: Dan Knapp and Mary Lou Van Deventer, Owners (510) 841-SAVE (7283) dr.ore@urbanore.net and marylouvan@urbanore.net

Description of partnership

Urban Ore operates a reuse and recycling transfer facility on a 3 acre site formerly used by a steel pipe manufacturer. Urban Ore leased the land and four buildings starting in 2000, invested \$1 M in upgrades by 2002 to bring the facility's main building up to code for mercantile use, and purchased most of the property from the pipe company in 2009.

Urban Ore has two specialized retail areas, each with its own expert staff. These are the Building Materials Exchange and the General Store. Within each of these two retail environments there are a number of specialized departments dealing in a more limited range of goods. Examples are doors, windows, and lumber for Building Material Exchange, and furniture, hardware, and arts and media for General Store.

Four departments' source, clean, and sort material that the retail operations convert into income. Salvage and Recycling scavenges materials under license to the City from the flat floor of the City's refuse transfer station. Outside Trader makes house and business calls to pick up materials by appointment. Both Building Materials and General Store are fed by two separate receiving departments that are empowered to buy, accept drop-offs, and write trade credits that are treated as money when they are spent. Urban Ore has developed markets for many materials often deemed "hard to recycle", such as window glass, aluminum window frames, and broken ceramics from toilets and dishes. It also handles more conventional recyclables such as cardboard. The Salvage and Recycling Department handles all recycling and trash preparation. Urban Ore believe it sends to landfill only about 2- 3% of what it takes in from all sources.

About a mile to the north of Urban Ore, the City of Berkeley operates a 9.6 acre transfer station complex that features a "clean MRF" where most of the sorting and processing is done upstream by customers. Two private nonprofit recycling companies share about half the land area with several City collection entities managed under an "Enterprise Fund" structure. Ecology Center picks up residential recyclables weekly from the entire city. The City itself has a set of commercial recycling trucks that pick up recyclables from restaurants and businesses. Finally, Community Conservation Centers processes recyclables from these three entities as well as from its own buyback and drop-off facility.

The City also collects plant debris and food at curbside with specialized packer trucks and offers self-haulers lower rates for clean plant debris and wood loads brought through the transfer station fee gate, which the City owns and operates. The City hauls these organics to a clean composting facility located east of the Bay Area in the San Joaquin watershed. Trash is delivered to several local landfills by City long-haul trucks. The City has not owned a landfill since 1983.

The City of Berkeley contracts with Urban Ore to scavenge reusable materials from the public drop-off area on transfer station floor. City of Berkeley crews also do some floor salvaging, mostly of mixed metals. Urban Ore loads reusables onto trucks and transports them across town to the Urban Ore Resource Recovery Park for resale.

Urban Ore stations three staff persons at the transfer station every day; these people are trained to know which potentially reusable materials are resalable. All Urban Ore staff members participate in a pay system that through income- and profit-sharing incentivizes them to divert as much material as possible from wasting and to feed it into the highest paying markets available.

During fiscal year 2008, Urban Ore removed approximately 820 tons of reusable material from the transfer station. This is about 12% of its total estimated diversion of 7,000 tons per year; the rest comes to the company from a combination of the Outside Trader and from the 50 - 100 vehicles that bring in loads each day to the onsite receiving departments.

For perspective, the 7,000 tons per year that Urban Ore diverts is about the same as what the residential curbside program diverts, and also equals diversion from the combination drop-off/buyback system that Community Conservation Centers operates. The City's compost collections handle the most tonnage. Official diversion estimates for Berkeley in 2009 were about 68%. None of that tonnage claimed for recycling was used as alternative daily cover (ADC) at landfills.

Contractual arrangement

The City of Berkeley pays Urban Ore \$40 per ton for every ton of reusable materials that are removed from the transfer station. This represents a landfill cost savings to the City of approximately \$20 per ton, because the City must otherwise haul these materials to the landfill at a cost, including transportation and tipping fee, of about \$60 per ton. However, the actual benefit to the City is greater still, because each ton Urban Ore takes in is paid for at the fee gate at the rate of \$126 per ton, making the total fiscal advantage \$86 per ton. The City has budgeted \$48,000 per year in 2010 to divert up to 1,200 tons per year. The City has renewed its contract with Urban Ore several times. The current contract will expire in June 2011.

Advantages and disadvantages

Advantages

There are several advantages to this arrangement:

- The City of Berkeley can rely on the expertise of the Urban Ore staff to recover nearly all potentially resalable materials that would otherwise be landfilled. Since reusable goods may

account for at least 5% of the tonnage received by wasting facilities that do not have access to a materials recovery enterprise like Urban Ore, this tonnage can be considerable. A transfer station floor study conducted by Cal Recovery years ago confirmed that Urban Ore's floor salvage reduced reusable goods going to the landfill to nearly zero.

- The City saves \$20 per ton in direct disposal costs for every ton of reusable materials that Urban Ore removes from the transfer station, and it gets to keep an additional \$66 dollars per ton in tipping fees paid by self-haul customers.
- Urban Ore collects and pays sales taxes, payroll taxes, and property taxes. Sales taxes amount to over \$200,000 per year; payroll taxes a similar amount; property taxes about \$95,000 per year currently. It provides 38 jobs at more than \$12 per hour. It supplies millions of dollars per year in construction and other materials to local artisans, contractors, property managers, and the like. It receives no subsidies.
- Urban Ore is fully insured to city specifications, and its safety record is outstanding. Urban Ore specializes in assisted unloading, which speeds the dumping process and generates good will from the haulers.
- Urban Ore staff assists City staff in segregating recyclable materials from the public drop-off area that are then recycled by the City.

Disadvantages

There are some disadvantages to the current arrangement:

- In 2000, Urban Ore moved from a site three blocks from the transfer station to a site over a mile away from the transfer station. This made it harder for customers to visit both facilities in the same pass.
- Customers must pay to tip their loads at the transfer station but they may be able to drop-off the material at Urban Ore for free, for cash, or for store credit.
- The current configuration of the transfer station is not efficient because it was built to feed an incinerator that was rejected by Berkeley voters. It is old, dilapidated in parts, and cluttered with incompatible uses. Customer access to the facility is restricted. Both the City of Berkeley and Urban Ore have invested cash toward redesigning and rebuilding the transfer station to make it more friendly to the City's announced goal of zero waste.